

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: November 2, 2004, 19:47:31 ; Search time 144.742 Seconds
(without alignments)
371,762 Million cell updates/sec

Title: US-10-054-873-7

Perfect score: 797

Sequence: 1 MFPTPLSRLEFDNMLRAHR.....IVEGCTCSISLVQLENYCN 150

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2002273 seqs, 358729239 residues

Total number of hits satisfying chosen parameters: 2002273

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

1: Genesep238sep04:*
2: Genesep1980s:*
3: Genesep1990s:*
4: Genesep2000s:*
5: Genesep2002s:*
6: Genesep2003as:*
7: Genesep2003bs:*
8: Genesep2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	797	100.0	150	2	AAV42861
2	555.5	69.7	107	2	AAV42861
3	470	59.0	92	2	AAV42856
4	470	59.0	134	2	AAV42856
5	470	59.0	191	5	ABG94861
6	466	58.5	188	8	ADL47330
7	466	58.5	132	1	AAV42861
8	466	58.5	132	8	ADL47330
9	466	58.5	132	8	ADL47330
10	466	58.5	132	8	ADL47330
11	466	58.5	132	8	ADL47330
12	466	58.5	132	8	ADL47330
13	466	58.5	132	8	ADL47330
14	466	58.5	132	8	ADL47330
15	466	58.5	132	8	ADL47330
16	466	58.5	132	8	ADL47330
17	466	58.5	132	8	ADL47330
18	466	58.5	132	8	ADL47330
19	466	58.5	132	8	ADL47330
20	466	58.5	132	8	ADL47330
21	466	58.5	132	8	ADL47330
22	466	58.5	132	8	ADL47330
23	466	58.5	132	8	ADL47330
24	466	58.5	132	8	ADL47330
25	466	58.5	132	8	ADL47330

26	464	58.2	191	8	ADL89541	Adl89541 Human mod
27	463	58.1	191	5	ABG94860	Abg94860 Human gro
28	463	58.1	191	5	ABG94977	Abg94977 Human gro
29	463	58.1	191	7	ADK41914	Adk41914 Human gro
30	463	58.1	191	8	ADL89532	Adl89532 Human gro
31	463	58.1	191	8	ADL89542	Adl89542 Human mod
32	463	58.1	191	8	ADL89553	Adl89553 Human mod
33	463	58.1	191	8	ADL89553	Adl89553 Human mod
34	463	58.1	191	8	ADL89553	Adl89553 Human mod
35	462	58.0	144	2	AAV42861	AAV42861 Human alb
36	462	58.0	191	5	ABG94975	Abg94975 Human gro
37	462	58.0	191	5	ABG94976	Abg94976 Human gro
38	462	58.0	191	7	ADK41912	Adk41912 Human gro
39	462	58.0	191	7	ADK41913	Adk41913 Human gro
40	462	58.0	191	8	ADL89547	Adl89547 Human mod
41	462	58.0	191	8	ADL89554	Adl89554 Human mod
42	462	58.0	191	8	ADL89553	Adl89553 Human mod
43	462	58.0	262	1	AAV42861	AAV42861 Human bet
44	461	57.8	191	2	AAV42861	AAV42861 Protein s
45	461	57.8	191	2	AAV42861	AAV42861 Natural h

ALIGNMENTS

RESULT 1
ID AAY42861
ID AAY42861 standard; protein; 150 AA.
XX
AC AAY42861;
XX
DT 19-JUN-2000 (first entry)
XX
DE Chimeric protein, SEQ ID 7.
XX
KW Insulin; precursor; growth hormone; chaperone; intramolecular; folding;
KW conformation; chimeric protein; cleavable; recombinant; production;
KW yield.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO950302-A1.
XX
PD 07-OCT-1999.
XX
PF 31-MAR-1998; 98WO-CN000052.
XX
PR 31-MAR-1998; 98WO-CN000052.
XX
PA (TONG-) TONGHUA GANTECH BIOTECHNOLOGY LTD.
XX
PI Gan Z;
XX
DR WPI, 1999-610839/52.
XX
PT New chimeric proteins containing human growth hormone fragment, used
PT particularly for the production of human insulin.
XX
PS Claim 14; Page 30-31; 46pp; English.
XX
CC This sequence represents a chimeric protein, which contains an N-terminal
CC fragment of human growth hormone (hGH) of the sequence given in AAY42856,
CC a cleavable peptide linker (AAY42857), and a human insulin precursor
CC comprising insulin A and B chains (AAY42859). The hGH portion of the
CC chimeric protein acts as an intramolecular chaperone (IMC) for the
CC insulin precursor, enabling it to fold correctly. The cleavable peptide
CC linker has a C-terminal Arg residue which enables the hGH portion of the
CC chimeric protein to be removed after folding has taken place. Production
CC of recombinant human insulin via an hGH-protein chimeric protein can
CC provide human insulin with correctly linked cysteine bridges with fewer
CC necessary procedural steps, and hence resulting in a higher yield of
CC human insulin. The IMC sequences not only protect insulin sequences from

CC intracellular degradation by a microorganism host, but also promote the
 CC folding of the fused insulin precursor, facilitate the solubility of the
 CC fusion protein and decrease the intermolecular interactions among the
 CC fusion proteins, thus allowing folding of the fused insulin precursor at
 CC commercially useful high concentrations. The procedural steps of cyanogen
 CC bromide cleavage, oxidative sulphydrololysis and related purification steps
 CC can thus be eliminated, along with the use of high concentrations of
 CC mercapтан or the use of hydrophobic absorbent resins

XX Sequence 150 AA;

Query Match 100.0%; Score 797; DB 2; Length 150;
 Best Local Similarity 100.0%; Pred. No. 1.4e-45;
 Matches 150; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MFPTPLSRFLPDNMLRAHRLHQLAFDTYQFEFEAVIPKQKYSFLONPOTSISSESIP 60
 DB 1 MFPTPLSRFLPDNMLRAHRLHQLAFDTYQFEFEAVIPKQKYSFLONPOTSISSESIP 60
 QY 61 TPSNREETQCKSNLELRISILLIQSWLEPVLGTGPRFVNHLCGSHLVEALYVCGER 120
 DB 61 TPSNREETQCKSNLELRISILLIQSWLEPVLGTGPRFVNHLCGSHLVEALYVCGER 120
 QY 121 GFYTPKTRGIVEQCCTSCISLYOLENYCN 150
 DB 121 GFYTPKTRGIVEQCCTSCISLYOLENYCN 150

RESULT 2
 AAY42860
 ID AAY42860 standard; protein; 107 AA.

AC AAY42860;
 DT 19-JAN-2000 (first entry)
 DE hGH-mini-proinsulin chimeric protein.

KM Insulin; precursor; growth hormone; chaperone; intramolecular; folding;
 KM conformation; chimeric protein; cleavable; recombinant; production;
 KM yield.

OS Synthetic.
 OS Homo sapiens.

PN WO950302-A1.

PD 07-OCT-1999.

PF 31-MAR-1998; 98WO-CN000052.

PR 31-MAR-1998; 98WO-CN000052.

PA (TONG-) TONGHUA GANTECH BIOTECHNOLOGY LTD.

PI Gan Z;

DR WPI; 1999-610839/52.

PT New chimeric proteins containing human growth hormone fragment, used
 PT particularly for the production of human insulin.

PS Claim 13; Page 30; 46pp; English.

CC This sequence represents a chimeric protein, hGH-mini-proinsulin. This
 CC chimeric protein contains an N-terminal fragment of human growth hormone
 CC (hGH) of the sequence given in AAY42855, a cleavable peptide linker
 CC (AAY42857), and a human insulin precursor comprising insulin A and B
 CC chains (AAY42859). The hGH portion of the chimeric protein acts as an
 CC intramolecular chaperone (IMC) for the insulin precursor, enabling it to
 CC fold correctly. The cleavable peptide linker has a C-terminal Arg residue
 CC which enables the hGH portion of the chimeric protein to be removed after
 CC folding has taken place. Production of recombinant human insulin via an

CC hGH-proinsulin chimeric protein can provide human insulin with correctly
 CC linked cysteine bridges with fewer necessary procedural steps, and hence
 CC resulting in a higher yield of human insulin. The IMC sequences not only
 CC protect insulin sequences from intracellular degradation by a
 CC microorganism host, but also promote the folding of the fused insulin
 CC precursor, facilitate the solubility of the fusion protein and decrease
 CC the intermolecular interactions among the fusion proteins, thus allowing
 CC folding of the fused insulin precursor at commercially useful high
 CC concentrations. The procedural steps of cyanogen bromide cleavage,
 CC oxidative sulphydrololysis and related purification steps can thus be
 CC eliminated, along with the use of high concentrations of mercapтан or the
 CC use of hydrophobic absorbent resins

XX Sequence 107 AA;

Query Match 69.7%; Score 555.5; DB 2; Length 107;
 Best Local Similarity 71.3%; Pred. No. 1.1e-29;
 Matches 107; Conservative 0; Mismatches 0; Indels 43; Gaps 1;

QY 1 MFPTPLSRFLPDNMLRAHRLHQLAFDTYQFEFEAVIPKQKYSFLONPOTSISSESIP 60
 DB 1 MFPTPLSRFLPDNMLRAHRLHQLAFDTYQFEFEAVIPKQKYSFLONPOTSISSESIP 60
 QY 61 TPSNREETQCKSNLELRISILLIQSWLEPVLGTGPRFVNHLCGSHLVEALYVCGER 120
 DB 61 TPSNREETQCKSNLELRISILLIQSWLEPVLGTGPRFVNHLCGSHLVEALYVCGER 120
 QY 121 GFYTPKTRGIVEQCCTSCISLYOLENYCN 150
 DB 78 GFYTPKTRGIVEQCCTSCISLYOLENYCN 107

RESULT 3
 AAY42856
 ID AAY42856 standard; protein; 92 AA.

AC AAY42856;

DT 19-JAN-2000 (first entry)

DE Human growth hormone (hGH) N-terminal fragment #2.

KM Growth hormone; chaperone; intramolecular; insulin; precursor; folding;
 KM conformation; chimeric protein; cleavable; recombinant; production;
 KM yield.

OS Homo sapiens.

PN WO950302-A1.

PD 07-OCT-1999.

PF 31-MAR-1998; 98WO-CN000052.

PR 31-MAR-1998; 98WO-CN000052.

PA (TONG-) TONGHUA GANTECH BIOTECHNOLOGY LTD.

PI Gan Z;

DR WPI; 1999-610839/52.

PT New chimeric proteins containing human growth hormone fragment, used
 PT particularly for the production of human insulin.

PS Claim 5; Page 28; 46pp; English.

CC This sequence represents an N-terminal fragment of human growth hormone
 CC (hGH) which is a component of a chimeric protein (AAY42861) which also
 CC contains a human insulin precursor (AAY42859). The hGH portion of the
 CC chimeric protein acts as an intramolecular chaperone (IMC) for the
 CC insulin precursor, enabling it to fold correctly. A cleavable peptide
 CC linker with a C-terminal Arg residue (AAY42857) enables the hGH portion

CC of the chimeric protein to be removed after folding has taken place.
 CC production of recombinant human insulin via an hgh-proinsulin chimeric
 CC protein can provide human insulin with correctly linked cysteine bridges
 CC with fewer necessary procedural steps, and hence resulting in a higher
 CC yield of human insulin. The IYC sequences not only protect insulin
 CC sequences from intracellular degradation by a microorganism host, but
 CC also promote the folding of the fused insulin precursor, facilitate the
 CC solubility of the fusion protein and decrease the intermolecular
 CC interactions among the fusion proteins, thus allowing folding of the
 CC fused insulin precursor at commercially useful high concentrations. The
 CC procedural steps of cyanogen bromide cleavage, oxidative sulphydrolysis
 CC and related purification steps can thus be eliminated, along with the use
 CC of high concentrations of mercapran or the use of hydrophobic absorbent
 CC resins

SQ Sequence 92 AA;

Query Match 59.0%; Score 470; DB 2; Length 92;
 Best Local Similarity 100.0%; Pred. NO. 4.3e-24;
 Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MFPTPLSLRPFDMNMLRAHRLHQLAFDTYQFEFEENYIPKQKYSFLQNPQTSLSFSSESIP 60
 Db 1 MFPTPLSLRPFDMNMLRAHRLHQLAFDTYQFEFEENYIPKQKYSFLQNPQTSLSFSSESIP 60
 QY 61 TPSNREETOQKSNLELRLISLLILQSWLEPVQ 92
 Db 61 TPSNREETOQKSNLELRLISLLILQSWLEPVQ 92

RESULT 4
 AAM92265
 ID AAM92265 standard; protein, 134 AA.

AC AAM92265;
 XX
 DT 08-JUN-1999 (first entry)

DE Human anti-angiogenic peptide 16K hgh Met-1Prol33.

XX Human; anti-angiogenic; prolactin; placental lactogen; hpl; angiogenesis;
 KW growth hormone; hgh; hgh-V; capillary endothelial cell proliferation;
 KW placental vasculatization; pregnancy; treatment; angiogenic disease;
 KW tumour; inhibitor; malignant; angiofibroma; arteriovenous malformation;
 KW arthritis; atherosclerotic plaques; corneal graft neovascularisation;
 KW wound healing; proliferative retinopathy; macular degeneration; trachoma;
 KW granuloma; glaucoma; ocular; uveitis; fracture; Osler-Weber syndrome;
 KW psoriasis; fibroplasia; scleroderma; Kaposi's sarcoma; vascular adhesion;
 KW ulcer; leukaemia; reproductive disorder; contraceptive agent;
 KW gene therapy; pre-eclampsia; intrauterine growth retardation;
 KW placental dysfunction.

OS Homo sapiens.

XX W09851323-A1.

XX 19-NOV-1998.

XX 12-MAY-1998; 98WO-US009691.

XX 13-MAY-1997; 97US-0046394P.

XX (REGC) UNIV CALIFORNIA.

XX Weiner RI, Martial JA, Struman I, Taylor R;

XX WPI: 1999-045192/04.

XX N-PSDB; AAX01707.

PT New anti-angiogenic peptides - comprise N-terminal fragments of human
 PT placental lactogen, human growth hormone, growth hormone variant or human
 PT prolactin.

PS Claim 4; Page 49-50; 87pp; English.

XX This invention describes novel human anti-angiogenic peptides derived
 CC from 10 to 150 consecutive amino acids selected from the N-terminal end
 CC of human placental lactogen (hpl), human growth hormone (hgh), growth
 CC hormone variant (hgh-V), or human prolactin. Such peptides (i) inhibit
 CC capillary endothelial cell proliferation and organisation (ii) inhibit
 CC angiogenesis in chick chorioallantoic membrane and (iii) binds to at
 CC least one specific receptor which does not bind an intact full length
 CC hgh, hpl, prolactin or hgh-V. The invention also describes a method for
 CC diagnosing a probable abnormality of placental vascularisation during
 CC pregnancy. The peptides can be used for treating an angiogenic disease in
 CC a subject, for inhibiting tumour formation or growth in a patient or for
 CC modulating vascularisation of a patient's placenta. In particular, the
 CC peptides can be used for preventing or treating e.g. malignant tumours,
 CC angiofibroma, arteriovenous malformation, arthritic such as rheumatoid
 CC arthritis, atherosclerotic plaques, corneal graft neovascularisation,
 CC delayed wound healing, proliferative retinopathy such as diabetic
 CC retinopathy, macular degeneration, granulations such as those occurring
 CC in haemorrhagic joints, inappropriate vasculatization in wound healing
 CC such as hypertrophic scars or keloid scars, neovascular glaucoma, ocular
 CC tumour, uveitis, non-union fractures, Osler-Weber syndrome, psoriasis,
 CC pyogenic glaucoma, retroocular fibroplasia, scleroderma, solid tumours,
 CC Kaposi's sarcoma, trachoma, vascular adhesions, chronic varicose ulcers,
 CC leukaemia, and reproductive disorders such as follicular and luteal cysts
 CC and choriocarcinoma. They can also be used as contraceptive agents. DNA
 CC encoding the peptides can be used in gene therapy. The measurement of
 CC abnormal levels of N-terminal fragments of hgh, hgh-V, prolactin or hpl
 CC can be used in assays for impairment of vascular development associated
 CC with pre-eclampsia, intrauterine growth retardation, and placental
 CC dysfunction

SQ Sequence 134 AA;

Query Match 59.0%; Score 470; DB 2; Length 134;
 Best Local Similarity 100.0%; Pred. NO. 5.8e-24;
 Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MFPTPLSLRPFDMNMLRAHRLHQLAFDTYQFEFEENYIPKQKYSFLQNPQTSLSFSSESIP 60
 Db 1 MFPTPLSLRPFDMNMLRAHRLHQLAFDTYQFEFEENYIPKQKYSFLQNPQTSLSFSSESIP 60
 QY 61 TPSNREETOQKSNLELRLISLLILQSWLEPVQ 92
 Db 61 TPSNREETOQKSNLELRLISLLILQSWLEPVQ 92

RESULT 5
 ABG94861
 ID ABG94861 standard; protein, 191 AA.

AC ABG94861;

XX 03-DEC-2002 (first entry)

XX Human growth hormone mutant hPRL (111-129).

XX Growth hormone; placental lactogen; prolactin; active domain; hgh;
 KW structure-function relationship; segment-substituted polypeptide; mutant;
 KW mutain.

XX Homo sapiens.

XX Synthetic.

XX US6428354-B1.

XX 06-AUG-2002.

XX 06-JUN-1995; 95US-00483039.

XX 28-OCT-1988; 88US-00264611.
 XX 26-OCT-1989; 89US-00428066.
 XX 27-APR-1992; 92US-00875204.

PR 13-OCT-1992; 92US-00960227.
PR 02-FEB-1994; 94US-00190723.

XX (GENE) GENENTECH INC.

XX PI Wells JA, Cunningham BC;

XX WPI; 2002-696875/75.

XX Identifying active domains within cloned polypeptides of known amino acid
PT sequence by substituting analog segments into the parent polypeptide is
PT useful to determine the relationship between structure and function.

PS Example 1; Page; 86pp; English.

CC The invention relates to identifying an unknown active domain in a region
CC of known amino acid sequence in a parent polypeptide e.g. human growth
CC hormone (hGH) which has been cloned and has a pre-identified biological
CC activity, where the active domain interacts with a target when the parent
CC polypeptide is in its native-folded form and the interaction is
CC responsible for the biological activity comprising: (a) comparing the
CC amino acid sequence of polypeptide structure in the region of known amino
CC acid sequence of hGH with the amino acid sequence of polypeptide
CC structure in a region of known amino acid sequence of an analogue
CC polypeptide (e.g. prolactin, placental lactogen or porcine growth
CC hormone) which has at least 15% homology with hGH alpha-carbon
CC coordinates within about 2-3.5 angstroms or hGH alpha-carbon coordinates
CC for about 60% of the analogue sequence, where any interaction of the
CC analogue with the target is different from target interaction with hGH;
CC (b) substituting DNA encoding an analogous polypeptide segment from the
CC analogue into DNA encoding the full length hGH, and expressing a segment-
CC substituted polypeptide; (c) contacting the segment-substituted
CC polypeptide with the target to determine interaction; (d) repeating steps
CC (b) and (c) with a second analogous polypeptide segment; and (e)
CC comparing the difference between activity of the first and second segment
CC substituted polypeptides as an indication of the location of the unknown
CC active domain in hGH. The method is useful for determining the
CC relationship between structure and function of known polypeptide
CC sequences. The present sequence is that of human growth hormone mutant
CC substituted with residues from an hGH analogue (prolactin, placental
CC lactogen or porcine growth hormone). Note: The present sequence is not
CC shown in the specification but was created by the indexer using the
CC mature hGH sequence and information contained in the specification

XX Sequence 191 AA;

SO Query Match 59.0%; Score 470; DB 5; Length 191;
Best Local Similarity 69.2%; Pred. No. 7.8e-24;
Matches 101; Conservative 8; Mismatches 19; Indels 18; Gaps 3;

QY 2 FPTPLSRPLFDNMLRAHRLHQLAFDTYQFEFEAYIPKQKXSFLLNPQTSLSFSSSIP 61
DB 1 FPTPLSRPLFDNMLRAHRLHQLAFDTYQFEFEAYIPKQKXSFLLNPQTSLSFSSSIP 60

QY 62 PSNNEETQOKSNLELRLISLLIOSWLEPVLQGTGRFVNOHLCGS-----H 108
DB 61 PSNNEETQOKSNLELRLISLLIOSWLEPVLQGTGRFVNOHLCGS-----H 119

QY 109 LVEALYVCGERGFEYTPKTRGIVQ 134
DB 120 LVEALYVCGERGFEYTPKTRGIVQ 141

RESULT 6
ADI47330
ID ADI47330 standard; protein, 188 AA.

XX ADI47330;

XX 22-APR-2004 (first entry)

XX Plasmid pOAI1A1 amino acid sequence SEQ ID NO:18.

KM multimer assembly; DNA sequence; amplification cassette;
KM monomer sequence; restriction pair member; diagnostic protein;
KM therapeutic protein.

XX Synthetic.

XX WO2004007687-A2.

XX 22-JAN-2004.

XX 16-JUL-2003; 2003WO-US022216.

XX 16-JUL-2002; 2002US-0396466P.

XX (BUSSEL) BUSSELL S.

XX Busell S;

XX WPI; 2004-122926/12.

XX N-PSDB; ADI47329.

PT Multimer assembly of DNA sequences comprising an amplification cassette
PT having monomer sequences and 5' restriction pair member (RPM) at its 5'
PT terminus and 3' RPM at its 3' terminus.

PS Example 2; SEQ ID NO 18; 163pp; English.

CC The present invention describes a multimer assembly of DNA sequences (1)
CC comprising at least one amplification cassette (AC) having at least one
CC monomer sequence whose polymerization is desired, and a 5' restriction
CC pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and
CC one or more of following: (a) 3'-terminal cassette comprising 3' specific
CC sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal
CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5'
CC RPM site of AC. (1) can be used for expressing a diagnostic protein or
CC therapeutic protein. In (1), the diagnostic protein and therapeutic
CC protein is a cytokine, a growth factor, a transcription factor, a receptor,
CC ligand, an enzyme, an inhibitor, a transcription factor, a transcription
CC factor, a DNA replication factor, an activator, a chaperone, or an
CC antibody. The therapeutic protein is interferon (IFN) alpha, IFN-beta,
CC IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8,
CC IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin,
CC colony-stimulating factor-1, granulocyte colony-stimulating factor,
CC granulocyte-macrophage colony-stimulating factor, leukemia inhibitor
CC factor, tumour necrosis factor, lymphotxin, platelet-derived growth
CC factor, fibroblast growth factor, vascular endothelial cell growth
CC factor, epidermal growth factor, transforming growth factor-beta,
CC transforming growth factor-alpha, thrombopoietin, stem cell factor,
CC oncostatin M, amphiregulin, müllerian-inhibiting substance, B-cell growth
CC factor, macrophage migration inhibiting factor, endostatin, or
CC angiotensin. The present sequence is used in the exemplification of the
CC present invention.

SO Sequence 188 AA;

QY Query Match 58.5%; Score 466; DB 8; Length 188;
Best Local Similarity 70.5%; Pred. No. 1.4e-23;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MFPTPLSRPLFDNMLRAHRLHQLAFDTYQFEFEAYIPKQKXSFLLNPQTSLSFSSSIP 60
DB 1 MFPTPLSRPLFDNMLRAHRLHQLAFDTYQFEFEAYIPKQKXSFLLNPQTSLSFSSSIP 60

QY 61 TPSNNEETQOKSNLELRLISLLIOSWLEPVLQGTGRFVNOHLCGS-----HLV 110
DB 61 TPSNNEETQOKSNLELRLISLLIOSWLEPVLQGTGRFVNOHLCGS-----HLV 119

QY 111 EALYLVCG-ERGFEYTPKTRGIVQ 134
DB 120 EALYLVCG-ERGFEYTPKTRGIVQ 142

RESULT 7

AAP90129
 ID AAP90129 standard; protein; 192 AA.
 AC AAP90129;
 XX
 DT 24-OCT-2003 (revised)
 DT 25-MAR-2003 (revised)
 DT 06-FEB-1996 (revised)
 DT 01-NOV-1989 (first entry)
 XX
 DE Human growth hormone.
 XX
 KM Human growth hormone; fusion protein; recombinant vector.
 XX
 OS Homo sapiens; (Human).
 XX
 PN JP01144981-A.
 PD 07-JUN-1989.
 XX
 PF 02-DEC-1987; 87JP-00304937.
 XX
 PR 02-DEC-1987; 87JP-00304937.
 XX
 PA (WAKT) WAKUNAGA SEIYAKU KK.
 XX
 DR WPI; 1989-209284/29.
 DR N-PSDB; AAN90269.
 XX
 PT Recombinant vector cong. fused protein aminoacid coding - composed of
 PT growth hormone or its polypeptide deriv. and foreign protein.
 XX
 PS Disclosure; Fig 1; 199p; Japanese.
 XX
 CC The invention consists of a vector cong. a fusion protein which is
 CC formed by ligating, downstream of a promoter, hGH or a deriv. (pref.
 CC formed by substen. of Met-14 with Ieu) and a foreign protein. Stability
 CC of the vector in the host is greatly increased so the protein yield is
 CC higher. (Updated on 25-MAR-2003 to correct PA field.) (Updated on 24-OCT-
 CC 2003 to standardise OS field)
 XX
 SQ Sequence 192 AA;
 Query Match 58.5%; Score 466; DB 1; Length 192;
 Best Local Similarity 70.5%; Pred. No. 1.4e-23;
 Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
 QY 1 MFPTIPLSRLFDNMLRAHRLHQAFTYQEFEEAYIPKQKYSFLONPQTSLSFSSSIP 60
 DB 1 MFPTIPLSRLFDNMLRAHRLHQAFTYQEFEEAYIPKQKYSFLONPQTSLSFSSSIP 60
 QY 61 TPNSREETQKSNLELRISILLIQSWLEPVQGTGRFVNQHLCS-----HVV 110
 DB 61 TPNSREETQKSNLELRISILLIQSWLEPVQGTGRFVNQHLCS-----HVV 110
 QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134
 DB 120 EGOTLMGRLEDDG---SPRIGQIFKQ 142
 RESULT 8
 AAW92264
 ID AAW92264 standard; protein; 192 AA.
 AC AAW92264;
 XX
 DT 08-JUN-1999 (first entry)
 XX
 DE Human anti-angiogenic peptide hGH Met-1Phe191.
 XX
 KM Human; anti-angiogenic; prolactin; Placental lactogen; hPL; angiogenesis;
 KM growth hormone; hGH; hGH-V; capillary endothelial cell proliferation;
 KM placental vascularisation; pregnancy; treatment; angiogenic disease;

KM tumour; inhibitor; malignant; angiofibroma; arteriovenous malformation;
 KM arthritis; atherosclerotic plaques; corneal graft neovascularisation;
 KM wound healing; proliferative retinopathy; macular degeneration; trachoma;
 KM granulation; glaucoma; ocular; uveitis; fracture; Osler-Weber syndrome;
 KM psoriasis; fibroplasia; scleroderma; Kaposi's sarcoma; vascular adhesion;
 KM ulcer; leukaemia; reproductive disorder; contraceptive agent;
 KM gene therapy; pre-eclampsia; intrauterine growth retardation;
 KM placental dysfunction.
 XX
 OS Homo sapiens.
 XX
 PN W09851323-A1.
 PD 19-NOV-1998.
 XX
 PF 12-MAY-1998; 98MO-US009691.
 XX
 PR 13-MAY-1997; 97US-0046394P.
 XX
 PA (REGC) UNIV CALIFORNIA.
 XX
 PI Weiner RI, Martial JA, Struman I, Taylor R;
 XX
 DR WPI; 1999-045192/04.
 DR N-PSDB; AAX01706.
 XX
 PT New anti-angiogenic peptides - comprise N-terminal fragments of human
 PT placental lactogen, human growth hormone, growth hormone variant or human
 PT prolactin.
 XX
 PS Example 3; Page 49; 87pp; English.
 XX
 CC This invention describes novel human anti-angiogenic peptides derived
 CC from 10 to 150 consecutive amino acids selected from the N-terminal end
 CC of human placental lactogen (hPL), human growth hormone (hGH), growth
 CC hormone variant (hGH-V), or human prolactin. Such peptides (i) inhibit
 CC capillary endothelial cell proliferation and organisation (ii) inhibit
 CC angiogenesis in chick chorioallantoic membrane and (iii) binds to at
 CC least one specific receptor which does not bind an intact full length
 CC hGH, hPL, prolactin or hGH-V. The invention also describes a method for
 CC diagnosing a probable abnormality of placental vascularisation during
 CC pregnancy. The peptides can be used for treating an angiogenic disease in
 CC a subject, for inhibiting tumour formation or growth in a patient or for
 CC modulating vascularisation of a patient's placenta. In particular, the
 CC peptides can be used for preventing or treating e.g. malignant tumours,
 CC angiofibroma, arteriovenous malformation, arthritic such as rheumatoid
 CC arthritis, atherosclerotic plaques, corneal graft neovascularisation,
 CC delayed wound healing, proliferative retinopathy such as diabetic
 CC retinopathy, macular degeneration, granulations such as those occurring
 CC in haemophilic joints, inappropriate vascularisation in wound healing
 CC such as hypertrophic scars or keloid scars, neovascular glaucoma, ocular
 CC tumour, uveitis, non-union fractures, Osler-Weber syndrome, psoriasis,
 CC pyogenic glaucoma, retrolental fibroplasia, scleroderma, solid tumours,
 CC Kaposi's sarcoma, trachoma, vascular adhesions, chronic varicose ulcers,
 CC leukaemia, and reproductive disorders such as follicular and luteal cysts
 CC and choroidcarcinoma. They can also be used as contraceptive agents. DNA
 CC encoding the peptides can be used in gene therapy. The measurement of
 CC abnormal levels of N-terminal fragments of hGH, hGH-V, prolactin or hPL
 CC can be used in assays for impairment of vascular development associated
 CC with pre-eclampsia, intrauterine growth retardation, and placental
 CC dysfunction
 XX
 SQ Sequence 192 AA;
 Query Match 58.5%; Score 466; DB 2; Length 192;
 Best Local Similarity 70.5%; Pred. No. 1.4e-23;
 Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
 QY 1 MFPTIPLSRLFDNMLRAHRLHQAFTYQEFEEAYIPKQKYSFLONPQTSLSFSSSIP 60
 DB 1 MFPTIPLSRLFDNMLRAHRLHQAFTYQEFEEAYIPKQKYSFLONPQTSLSFSSSIP 60
 QY 61 TPNSREETQKSNLELRISILLIQSWLEPVQGTGRFVNQHLCS-----HVV 110

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DB 61 TFSNREFTQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVYGASDSNYDLKCLE 119
QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLLEDG---SPRTGQIFKQ 142

RESULT 9
ADI47320
ID ADI47320 standard; protein; 192 AA.
XX
AC ADI47320;
XX
DT 22-APR-2004 (first entry)
XX
DE Plasmid p0A0 amino acid sequence SEQ ID NO:8.
XX
KW multimer assembly; DNA sequence; amplification cassette;
KW monomer sequence; restriction pair member; diagnostic protein;
KW therapeutic protein.
XX
OS Synthetic.
XX
PN WO2004007687-A2.
XX
PD 22-JAN-2004.
XX
PF 16-JUL-2003; 2003WO-US0222216.
XX
PR 16-JUL-2002; 2002US-0396466P.
XX
PA (BUSSEL) BUSSELL S.
XX
PI Busnell S;
XX
DR WPI; 2004-122926/12.
XX
DR N-PSDB; ADI47319.
XX
PT Multimer assembly of DNA sequences comprising an amplification cassette
PT having monomer sequences and 5' restriction pair member (RPM) at its 5'
PT terminus and 3' RPM at its 3' terminus.
XX
PS Example 1; SEQ ID NO 8; 163pp; English.
XX
CC The present invention describes a multimer assembly of DNA sequences (I)
CC comprising at least one amplification cassette (AC) having at least one
CC monomer sequence whose polymerisation is desired, and a 5' restriction
CC pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and
CC one or more of following: (a) 3'-terminal cassette comprising 3' specific
CC sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal
CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5'
CC RPM site of AC. (I) can be used for expressing a diagnostic protein or
CC therapeutic protein. In (I), the diagnostic protein and therapeutic
CC protein is a cytokine, a growth factor, a hormone, a receptor, a receptor
CC ligand, an enzyme, an inhibitor, a transcription factor, a translation
CC factor, a DNA replication factor, an activator, a chaperonin, or an
CC antibody. The therapeutic protein is interferon (IFN) alpha, IFN-beta,
CC IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8,
CC IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin,
CC colony-stimulating factor-1, granulocyte colony-stimulating factor,
CC granulocyte-macrophage colony-stimulating factor, leukaemia inhibitory
CC factor, tumour necrosis factor, lymphotoxin, platelet-derived growth
CC factor, fibroblast growth factor, vascular endothelial cell growth
CC factor, epidermal growth factor, transforming growth factor-beta,
CC transforming growth factor-alpha, thrombopoietin, stem cell factor,
CC oncostatin M, amphiregulin, Mullerian-inhibiting substance, B-cell growth
CC factor, macrophage migration inhibiting factor, endostatin, or
CC angiotensin. The present sequence is used in the exemplification of the
CC present invention.
XX
SQ Sequence 192 AA;

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Query Match          58.5%; Score 466; DB 8; Length 192;
Best Local Similarity 70.5%; Pred. No. 1,4e-23;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPEPTPLSLRFDNAMPARHLHQLADPTTQEEFEAEVTPKEQKYSFLQNPQTSLSSEIP 60
DB 1 MPEPTPLSLRFDNAMPARHLHQLADPTTQEEFEAEVTPKEQKYSFLQNPQTSLSSEIP 60
QY 61 TFSNREFTQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVYGASDSNYDLKCLE 119
DB 61 TFSNREFTQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVYGASDSNYDLKCLE 119
QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLLEDG---SPRTGQIFKQ 142

RESULT 10
ADI47390
ID ADI47390 standard; protein; 192 AA.
XX
AC ADI47390;
XX
DT 22-APR-2004 (first entry)
XX
DE Plasmid p0A5A amino acid sequence SEQ ID NO:78.
XX
KW multimer assembly; DNA sequence; amplification cassette;
KW monomer sequence; restriction pair member; diagnostic protein;
KW therapeutic protein.
XX
OS Synthetic.
XX
PN WO2004007687-A2.
XX
PD 22-JAN-2004.
XX
PF 16-JUL-2003; 2003WO-US0222216.
XX
PR 16-JUL-2002; 2002US-0396466P.
XX
PA (BUSSEL) BUSSELL S.
XX
PI Busnell S;
XX
DR WPI; 2004-122926/12.
XX
DR P-PSDB; ADI47389.
XX
PT Multimer assembly of DNA sequences comprising an amplification cassette
PT having monomer sequences and 5' restriction pair member (RPM) at its 5'
PT terminus and 3' RPM at its 3' terminus.
XX
PS Example 12; SEQ ID NO 78; 163pp; English.
XX
CC The present invention describes a multimer assembly of DNA sequences (I)
CC comprising at least one amplification cassette (AC) having at least one
CC monomer sequence whose polymerisation is desired, and a 5' restriction
CC pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and
CC one or more of following: (a) 3'-terminal cassette comprising 3' specific
CC sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal
CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5'
CC RPM site of AC. (I) can be used for expressing a diagnostic protein or
CC therapeutic protein. In (I), the diagnostic protein and therapeutic
CC protein is a cytokine, a growth factor, a hormone, a receptor, a receptor
CC ligand, an enzyme, an inhibitor, a transcription factor, a translation
CC factor, a DNA replication factor, an activator, a chaperonin, or an
CC antibody. The therapeutic protein is interferon (IFN) alpha, IFN-beta,
CC IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8,
CC IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin,
CC colony-stimulating factor-1, granulocyte colony-stimulating factor,
CC granulocyte-macrophage colony-stimulating factor, leukaemia inhibitory
CC factor, tumour necrosis factor, lymphotoxin, platelet-derived growth
CC factor, fibroblast growth factors, vascular endothelial cell growth

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CC factor, epidermal growth factor, transforming growth factor-beta,
 CC transforming growth factor-alpha, thrombopoietin, stem cell factor,
 CC oncostatin M, amphiregulin, mulierian-inhibiting substance, B-cell growth
 CC factor, macrophage migration inhibiting factor, endostatin, or
 CC angiotensin. The present sequence is used in the exemplification of the
 CC present invention.

XX Sequence 192 AA;

Query Match 58.5%; Score 466; DB 8; Length 192;
 Best Local Similarity 70.5%; Pred. No. 1.4e-23;

Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTTPLSRFPDNLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSISIP 60
 DB 1 MPTTPLSRFPDNLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSISIP 60

QY 61 TFSNREFTQOKSNLELRISLLIQSWLEPVQLGTGPRFVNHLCGS-----HLV 110
 DB 61 TFSNREFTQOKSNLELRISLLIQSWLEPVQLGTGPRFVNHLCGS-----HLV 110

QY 111 EALYIVCG--ERGFYTPKTRGIVEQ 134
 DB 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 11

AD147398
 ID AD147398 standard; protein; 192 AA.

XX AD147398;

DT 22-APR-2004 (first entry)

XX Nmer amplification cassette amino acid sequence SEQ ID NO:86.

XX multimer assembly; DNA sequence; amplification cassette;

KW monomer sequence; restriction pair member; diagnostic protein;

XX therapeutic protein.

OS Synthetic.

XX WO2004007687-A2.

PN 22-JAN-2004.

PD 16-JUL-2003; 2003WO-US022216.

PF 16-JUL-2002; 2002US-0396466P.

PR 16-JUL-2002; 2002US-0396466P.

PA (BUSELL) BUSELL S.

PI Bussell S;

XX WPI: 2004-122926/12.

DR P-PsDB; AD147397.

XX Multi-mer assembly of DNA sequences comprising an amplification cassette

PT having monomer sequences and 5' restriction pair member (RPM) at its 5'

PR terminus and 3' RPM at its 3' terminus.

XX Claim 115; SEQ ID NO 86; 163pp; English.

CC The present invention describes a multimer assembly of DNA sequences (I)

CC comprising at least one amplification cassette (AC) having at least one

CC monomer sequence whose polymerization is desired, and a 5' restriction

CC pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and

CC one or more of following: (a) 3'-terminal cassette comprising 3' specific

CC sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal

CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5'

CC RPM site of AC. (I) can be used for expressing a diagnostic protein or

CC therapeutic protein. In (I), the diagnostic protein and therapeutic

CC protein is a cytokine, a growth factor, a hormone, a receptor, a receptor

CC ligand, an enzyme, an inhibitor, a transcription factor, a translation

CC factor, a DNA replication factor, an activator, a chaperonin, or an

CC antibody. The therapeutic protein is interferon (IFN) alpha, IFN-beta,

CC IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8,

CC IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin,

CC colony-stimulating factor-1, granulocyte colony-stimulating factor,

CC granulocyte-macrophage colony-stimulating factor, leukemia inhibitory

CC factor, tumour necrosis factor, lymphotoxin, platelet-derived growth

CC factor, fibroblast growth factors, vascular endothelial cell growth

CC factor, epidermal growth factor, transforming growth factor-beta,

CC transforming growth factor-alpha, thrombopoietin, stem cell factor,

CC oncostatin M, amphiregulin, mulierian-inhibiting substance, B-cell growth

CC factor, macrophage migration inhibiting factor, endostatin, or

CC angiotensin. The present sequence is used in the exemplification of the

CC present invention.

XX Sequence 192 AA;

Query Match 58.5%; Score 466; DB 8; Length 192;
 Best Local Similarity 70.5%; Pred. No. 1.4e-23;

Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTTPLSRFPDNLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSISIP 60
 DB 1 MPTTPLSRFPDNLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSISIP 60

QY 61 TFSNREFTQOKSNLELRISLLIQSWLEPVQLGTGPRFVNHLCGS-----HLV 110
 DB 61 TFSNREFTQOKSNLELRISLLIQSWLEPVQLGTGPRFVNHLCGS-----HLV 110

QY 111 EALYIVCG--ERGFYTPKTRGIVEQ 134
 DB 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 12

AD147354
 ID AD147354 standard; protein; 193 AA.

XX AD147354;

DT 22-APR-2004 (first entry)

XX Plasmid pCA31A amino acid sequence SEQ ID NO:42.

XX multimer assembly; DNA sequence; amplification cassette;

KW monomer sequence; restriction pair member; diagnostic protein;

XX therapeutic protein.

OS Synthetic.

XX WO2004007687-A2.

PN 22-JAN-2004.

PD 16-JUL-2003; 2003WO-US022216.

PF 16-JUL-2002; 2002US-0396466P.

PR 16-JUL-2002; 2002US-0396466P.

PA (BUSELL) BUSELL S.

PI Bussell S;

XX WPI: 2004-122926/12.

DR N-PsDB; AD147353.

XX Multi-mer assembly of DNA sequences comprising an amplification cassette

PT having monomer sequences and 5' restriction pair member (RPM) at its 5'

PR terminus and 3' RPM at its 3' terminus.

XX Example 7; SEQ ID NO 42; 163pp; English.

PS The present invention describes a multimer assembly of DNA sequences (I)

CC comprising at least one amplification cassette (AC) having at least one

CC monomer sequence whose polymerization is desired, and a 5' restriction

CC pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and

CC one or more of following: (a) 3'-terminal cassette comprising 3' specific

CC sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal

CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5'

CC RPM site of AC. (I) can be used for expressing a diagnostic protein or

CC therapeutic protein. In (I), the diagnostic protein and therapeutic

CC protein is a cytokine, a growth factor, a hormone, a receptor, a receptor

comprising at least one amplification cassette (AC) having at least one monomer sequence whose polymerisation is desired, and a 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and one or more of following: (a) 3'-terminal cassette comprising 3' specific sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC. (1) can be used for expressing a diagnostic protein or therapeutic protein. In (1), the diagnostic protein and therapeutic protein is a cytokine, a growth factor, a hormone, a receptor, a receptor ligand, an enzyme, an inhibitor, a transcription factor, a translation factor, a DNA replication factor, an activator, a chaperonin, or an antibody. The therapeutic protein is interferon (IFN) alpha, IFN-beta, IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin, colony-stimulating factor-1, granulocyte colony-stimulating factor, granulocyte-macrophage colony-stimulating factor, leukaemia inhibitory factor, tumour necrosis factor, lymphotoxin, platelet-derived growth factor, fibroblast growth factors, vascular endothelial cell growth factor, epidermal growth factor, transforming growth factor-beta, transforming growth factor-alpha, thrombopoietin, stem cell factor, oncostatin M, amphiregulin, muellerian-inhibiting substance, B-cell growth factor, macrophage migration inhibiting factor, endostatin, or angiotensin. The present sequence is used in the exemplification of the present invention.

Sequence 193 AA;

Query Match 58.5%; Score 466; DB 8; Length 193;
Best Local Similarity 70.5%; Pred. No. 1,4e-23;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MFPTPLSRFLPDNMLRAHRLHQLAFDPTYOEFEEAVYIKKQKXSFLOQPOTLSFSESIP 60
DB 1 MFPTPLSRFLPDNMLRAHRLHQLAFDPTYOEFEEAVYIKKQKXSFLOQPOTLSFSESIP 60
QY 61 TPSNRETOQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVGASDSNVYDLKDLB 119
DB 61 TPSNRETOQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVGASDSNVYDLKDLB 119
QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLDGS---SPRTGQIFKQ 142

RESULT 13
ADI47384

ID ADI47384 standard; protein; 206 AA.

AC ADI47384;

DT 22-APR-2004 (first entry)

DE Plasmid pOA43A insert amino acid sequence SEQ ID NO:72.

XX multimer assembly; DNA sequence; amplification cassette;

KW monomer sequence; restriction pair member; diagnostic protein;

XX therapeutic protein.

OS Synthetic.

PN WO2004007687-A2.

PD 22-JAN-2004.

PF 16-JUL-2003; 2003WO-US022216.

PR 16-JUL-2002; 2002US-0396466P.

PA (BUSS/) BUSSBL S.

PI Bussell S;

XX Bussell S;

XX Bussell S;

XX Bussell S;

DR WPI; 2004-122926/12.

DE P-PSDB; ADI47383.

XX Multimer assembly of DNA sequences comprising an amplification cassette
PT having monomer sequences and 5' restriction pair member (RPM) at its 5'
PT terminus and 3' RPM at its 3' terminus.

PS Example 11; SEQ ID NO 72; 163bp; English.

XX The present invention describes a multimer assembly of DNA sequences (1) comprising at least one amplification cassette (AC) having at least one monomer sequence whose polymerisation is desired, and a 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and one or more of following: (a) 3'-terminal cassette comprising 3' specific sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC. (1) can be used for expressing a diagnostic protein or therapeutic protein. In (1), the diagnostic protein and therapeutic protein is a cytokine, a growth factor, a hormone, a receptor, a receptor ligand, an enzyme, an inhibitor, a transcription factor, a translation factor, a DNA replication factor, an activator, a chaperonin, or an antibody. The therapeutic protein is interferon (IFN) alpha, IFN-beta, IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin, colony-stimulating factor-1, granulocyte colony-stimulating factor, granulocyte-macrophage colony-stimulating factor, leukaemia inhibitory factor, tumour necrosis factor, lymphotoxin, platelet-derived growth factor, fibroblast growth factors, vascular endothelial cell growth factor, epidermal growth factor, transforming growth factor-beta, transforming growth factor-alpha, thrombopoietin, stem cell factor, oncostatin M, amphiregulin, muellerian-inhibiting substance, B-cell growth factor, macrophage migration inhibiting factor, endostatin, or angiotensin. The present sequence is used in the exemplification of the present invention.

Sequence 206 AA;

Query Match 58.5%; Score 466; DB 8; Length 206;
Best Local Similarity 70.5%; Pred. No. 1.5e-23;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MFPTPLSRFLPDNMLRAHRLHQLAFDPTYOEFEEAVYIKKQKXSFLOQPOTLSFSESIP 60
DB 1 MFPTPLSRFLPDNMLRAHRLHQLAFDPTYOEFEEAVYIKKQKXSFLOQPOTLSFSESIP 60
QY 61 TPSNRETOQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVGASDSNVYDLKDLB 119
DB 61 TPSNRETOQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVGASDSNVYDLKDLB 119
QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLDGS---SPRTGQIFKQ 142

RESULT 14
ADI47363

ID ADI47363 standard; protein; 391 AA.

AC ADI47363;

DT 22-APR-2004 (first entry)

DE Plasmid pOA31F2 insert amino acid sequence SEQ ID NO:51.

XX multimer assembly; DNA sequence; amplification cassette;

KW monomer sequence; restriction pair member; diagnostic protein;

XX therapeutic protein.

OS Synthetic.

PN WO2004007687-A2.

PD 22-JAN-2004.

PF		16-JUL-2003; 2003MO-US0222216.
XX		
XX	PR	16-JUL-2002; 2002US-0396466P.
XX	EA	(BUSEL/) BUSELL S.
XX	EI	Bussell S;
XX	XX	
DR	WP1	; 2004-122926/12.
DR	N-PSDB	; ADI47362.
XX		Multimer assembly of DNA sequences comprising an amplification cassette having monomer sequences and 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus.
PT		
PT		
XX		
XX		Example 8; SEQ ID NO 51; 163bp; English.
CC		The present invention describes a multimer assembly of DNA sequences (I)
CC		comprising at least one amplification cassette (AC) having at least one
CC		monomer sequence whose polymerisation is desired, and a 5' restriction
CC		pair member (RPM), at its 5' terminus and 3' RPM at its 3' terminus, and
CC		one or more of following: (a) 3'-terminal cassette comprising 3' specific
CC		sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal
CC		cassette comprising 5' specific sequence and 3' RPM site fused to a 5'
CC		RPM site of AC. (I) can be used for expressing a diagnostic protein or
CC		therapeutic protein. In (II), the diagnostic protein and therapeutic
CC		protein is a cytokine, a growth factor, a hormone, a receptor, a receptor
CC		ligand, an enzyme, an inhibitor, a transcription factor, a translation
CC		factor, a RNA replication factor, an activator, a chaperonin, or an
CC		antibody. The therapeutic protein is interferon (IFN) alpha, IFN-beta,
CC		IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-6, IL-7, IL-8,
CC		IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin,
CC		colony-stimulating factor-1, granulocyte colony-stimulating factor,
CC		granulocyte-macrophage colony-stimulating factor, leukaemia inhibitory
CC		factor, tumor necrosis factor, lymphotoxin, platelet-derived growth
CC		factor, fibroblast growth factors, vascular endothelial cell growth
CC		factor, epidermal growth factor, transforming growth factor-beta,
CC		transforming growth factor-alpha, thrombopoietin, stem cell factor,
CC		oncostatin M, amphiregulin, Mullerian-inhibiting substance, B-cell growth
CC		factor, macrophage migration inhibiting factor, endostatin, or
CC		angiotensin. The present sequence is used in the exemplification of the
XX		present invention.
XX		
SQ	Sequence	391 AA;
	Query Match	58.5%; Score 466; DB 8; Length 391;
	Best Local Similarity	70.5%; Pred.No. 2.6e-23;
	Matches 103; Conservative	7; Mismatches 20; Indels 16; Gaps 4
QY	1	MPETPLISRLFDNAMRAHRLHQLPDYQCEFEENAYIPKEQKYSFLONPOTSLSFESIP 60
DY	1	MPETPLISRLFDNAMRAHRLHQLPDYQCEFEENAYIPKEQKYSFLONPOTSLSFESIP 60
QY	61	TPEARETTOOKSNLELRIRSLILLSMSEPPQLGGRPFVNHCGS-----HLV 110
DY	61	TPEARETTOOKSNLELRIRSLILLSMSEPPQLGGRPFVNHCGS-----HLV 110
QY	111	EALYLVCG--ERGFYTPXTRGIIVQO 134
DY	120	EGIQTLMGRLDEG--SPRTGQIFRQ 142
RESULT 15		
ID	ADI47344	standard; protein; 574 AA.
AD	ADI47344	
AC	ADI47344	
DT	22-APR-2004	(first entry).
DE	Plasmid pDA1D insert amino acid sequence SEQ ID NO:32.	
XW	multimer assembly; DNA sequence; amplification cassette;	

monomer sequence; restriction pair member; diagnostic protein;
 therapeutic protein.
 Synthetic.
 WO2004007687-A2.
 22-JAN-2004.
 16-JUL-2003; 2003WO-US0222216.
 16-JUL-2002; 2002US-0396466P.
 (BUSEL/) BUSELL S.
 Bussell S;
 WI: 2004-122926/2.
 N-PSDB; ADI47343.
 Multimer assembly of DNA sequences comprising an amplification cassette having monomer sequences and 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus.
 Claim 67; SEQ ID NO 32; 163pp; English.
 The present invention describes a multimer assembly of DNA sequences (I) comprising at least one amplification cassette (AC) having at least one monomer sequence whose polymerization is desired, and a 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and one or more of following: (a) 3'-terminal cassette comprising 3' specific sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC. (I) can be used for expressing a diagnostic protein or therapeutic cytokine. In (I), the diagnostic protein and therapeutic protein is a cytokine, a growth factor, a hormone, a receptor, a receptor ligand, an enzyme, an inhibitor, a transcription factor, a translation factor, a DNA replication factor, an activator, a chaperonin, or an antibody. The therapeutic protein is interferon (IFN alpha, IFN-beta, IFN-gamma, interleukin (IL)-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin, granulocyte-stimulating factor-1, granulocyte colony-stimulating factor, granulocyte-macrophage colony-stimulating factor, leukemia inhibitory factor, tumor necrosis factor, lymphotoxin, platelet-derived growth factor, fibroblast growth factors, vascular endothelial cell growth factor, epidermal growth factor, transforming growth factor-beta, transforming growth factor-alpha, thrombopoietin, stem cell factor, oncostatin M, amphiregulin, multiplex-inhibiting substance, B-cell growth factor, macrophage migration inhibiting factor, endostatin, or angiostatin. The present sequence is used in the exemplification of the present invention.
 Sequence 574 AA:
 Query Match 58.5%; Score 466; DB 8; Length 574;
 Best Local Similarity 70.5%; Pred. No. 3,5e-22;
 Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4
 Oy 1 MPTPTLSRLPNNAMRAHRLHQLAFDYQFEFEAYIPKQCKYSFLQNPQTSLSFSSIP 60
 Db 1 MFTPTLSRLPNNAMRAHRLHQLAFDYQFEFEAYIPKQCKYSFLQNPQTSLSFSSIP 60
 Oy 61 TSPNRETOQCKNSLELLRLISLLILQSWLEPVQLGTGPPFNQHCIGS-----HLV 110
 Db 61 TSPNRETOQCKNSLELLRLISLLILQSWLEPVQF-LRSFVANSLVYASDSNVDLKLDE 119
 Oy 111 EALYVCG--ERGFYTPKTRGIVQ 134
 Db 120 EGIQTLMGRLEDG---SPRTQIGIFRQ 142
 Search completed: November 2, 2004, 20:11:49
 Job time : 145.742 secs

Sat Nov 6 18:59:31 2004

us-10-054-873-7.rag

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: November 2, 2004, 20:02:41 ; Search time 36.5314 Seconds
(without alignments)
272.306 Million cell updates/sec

Title: US-10-054-873-7

Perfect score: 797

Sequence: 1 MPTPLSLRLFDNMLRAHR.....IVECCCTSLGSLYQLENYCN 150

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 478139 seqs, 66318000 residues

Total number of hits satisfying chosen parameters: 478139

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA.*

1: /cgn2_6/ptodata/1/1aa/5A.COMB.pep.*
2: /cgn2_6/ptodata/1/1aa/5B.COMB.pep.*
3: /cgn2_6/ptodata/1/1aa/6A.COMB.pep.*
4: /cgn2_6/ptodata/1/1aa/6B.COMB.pep.*
5: /cgn2_6/ptodata/1/1aa/PCRTUS.COMB.pep.*
6: /cgn2_6/ptodata/1/1aa/backfilest.pep.*

Prod. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	ID	Description
1	466	58.5	192 1 US-08-093-383-1	Sequence 1, Appl
2	461	57.8	191 3 US-09-284-878-5	Sequence 5, Appl
3	461	57.8	191 4 US-09-462-941-1	Sequence 1, Appl
4	461	57.8	194 3 US-08-383-621-4	Sequence 4, Appl
5	461	57.8	194 3 US-08-459-906-4	Sequence 4, Appl
6	461	57.8	217 3 US-08-589-028-10	Sequence 10, Appl
7	461	57.8	217 3 US-08-784-582-10	Sequence 10, Appl
8	461	57.8	217 3 US-08-785-271-10	Sequence 10, Appl
9	461	57.8	217 3 US-08-785-628-11	Sequence 11, Appl
10	461	57.8	217 3 US-09-284-878-1	Sequence 1, Appl
11	461	57.8	217 4 US-09-929-918-9	Sequence 9, Appl
12	461	57.8	241 3 US-09-424-6208-25	Sequence 25, Appl
13	461	57.8	245 4 US-09-280-030-66	Sequence 66, Appl
14	461	57.8	274 3 US-08-784-582-71	Sequence 71, Appl
15	460	57.7	360 3 US-08-784-582-73	Sequence 73, Appl
16	460	57.7	191 4 US-09-554-451-1	Sequence 1, Appl
17	455	57.1	191 3 US-09-465-451-1	Sequence 1, Appl
18	455	57.1	191 4 US-09-554-451-3	Sequence 3, Appl
19	455	57.1	217 1 US-08-187-756C-4	Sequence 4, Appl
20	455	57.1	217 1 US-08-469-466-51	Sequence 51, Appl
21	455	57.1	217 2 US-08-469-658-51	Sequence 51, Appl
22	455	57.1	217 2 US-08-710-324A-4	Sequence 4, Appl
23	455	57.1	217 4 US-09-411-657-4	Sequence 4, Appl
24	454	57.0	400 4 US-09-420-819-37	Sequence 37, Appl
25	454	57.0	401 4 US-08-800-215C-18	Sequence 18, Appl
26	448	56.2	191 3 US-08-800-215C-18	Sequence 18, Appl
27	446	56.0	191 3 US-08-800-215C-18	Sequence 16, Appl

28	446	56.0	191 3 US-08-800-215C-20	Sequence 20, Appl
29	365.5	45.9	176 3 US-08-791-728-1	Sequence 1, Appl
30	365.5	45.9	176 3 US-08-990-774-1	Sequence 1, Appl
31	359.5	45.1	176 3 US-08-791-728-2	Sequence 2, Appl
32	359.5	45.1	176 3 US-08-990-774-2	Sequence 2, Appl
33	343	43.0	168 6 5424199-3	Parent No. 5424199
34	334.5	42.0	198 1 US-08-187-756C-5	Sequence 5, Appl
35	334.5	42.0	198 2 US-08-710-324A-5	Sequence 5, Appl
36	334.5	42.0	198 4 US-09-411-657-5	Sequence 5, Appl
37	316.5	39.7	96 1 US-08-160-376A-5	Sequence 5, Appl
38	316.5	39.7	96 1 US-08-389-487-8	Sequence 8, Appl
39	314	39.4	137 1 US-08-400-256-39	Sequence 39, Appl
40	314	39.4	137 3 US-08-975-265-39	Sequence 39, Appl
41	309.5	38.8	146 1 US-08-400-256-48	Sequence 48, Appl
42	309.5	38.8	146 3 US-08-975-265-48	Sequence 48, Appl
43	309	38.8	145 1 US-08-400-256-45	Sequence 45, Appl
44	309	38.8	145 3 US-08-975-265-45	Sequence 45, Appl
45	306.5	38.5	191 1 US-08-468-824-8	Sequence 8, Appl

ALIGNMENTS

RESULT 1
US-08-093-383-1
Sequence 1, Application US/08093383
Patent No. 5489529
GENERAL INFORMATION:
APPLICANT: DeBoer, Herman A.
APPLICANT: Heyneker, Herbert L.
APPLICANT: Seeburg, Peter H.
TITLE OF INVENTION: DNA for Expression of Bovine Growth Hormone
NUMBER OF SEQUENCES: 30
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/093.383
FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/615827
FILING DATE: 28-NOV-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/198824
FILING DATE: 05-APR-1988
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 06/632361
FILING DATE: 19-JUL-1984
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 06/303687
FILING DATE: 18-SEP-1981
ATTORNEY/AGENT INFORMATION:
NAME: Johnston, Sean A.
REGISTRATION NUMBER: 935,910
REFERENCE/DOCKET NUMBER: 46C4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/952-3562
TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 192 amino acids
TYPE: amino acid

TOPOLOGY: linear
US-08-093-383-1

Query Match
Best Local Similarity 58.5%; Score 466; DB 1; Length 192;
70.5%; Pred. No. 1.8e-42;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSSESIP 60
DB 1 MPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSSESIP 60
QY 61 PPSNREETOQKSNLELRLISLLIQSWLEPVQGLRGPRFVNOHLCGS-----HLV 110
DB 61 PPSNREETOQKSNLELRLISLLIQSWLEPVQGLRGPRFVNOHLCGS-----HLV 110
QY 111 ALYVCG--ERGFYTPKTRGIVEQ 134
DB 120 GIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 2

US-09-284-878-5
Sequence 5, Application US/09284878
Patent No. 6342375

GENERAL INFORMATION:

APPLICANT: Olazaran, Martha Guerrero
APPLICANT: Saldaña, Hugo Barrera
APPLICANT: Saldaña, Jose Maria Viader
TITLE OF INVENTION: Genetically Modified Methylotrophic P. pastoris Yeast for the
FILE REFERENCE: 1829, 0010000
CURRENT APPLICATION NUMBER: US/09/284,878
CURRENT FILING DATE: 1999-07-21
PRIOR APPLICATION NUMBER: PCT/NX97/00003
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patent Ver. 2.1
SEQ ID NO 5
LENGTH: 191
TYPE: PRT
ORGANISM: Homo sapiens
US-09-284-878-5

Query Match
Best Local Similarity 57.8%; Score 461; DB 3; Length 191;

Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 PPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSSESIP 61
DB 1 PPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSSESIP 60
QY 62 PPSNREETOQKSNLELRLISLLIQSWLEPVQGLRGPRFVNOHLCGS-----HLV 111
DB 61 PPSNREETOQKSNLELRLISLLIQSWLEPVQGLRGPRFVNOHLCGS-----HLV 111
QY 112 ALYVCG--ERGFYTPKTRGIVEQ 134
DB 120 GIQTLMGRLDGG--SPRTGQIFKQ 141

RESULT 3

US-09-462-941-1
Sequence 1, Application US/09462941
Patent No. 6608183

GENERAL INFORMATION:

APPLICANT: Cox III, George N
APPLICANT: Bolder Biotechnology, Inc.
TITLE OF INVENTION: Derivatives of Growth Hormone and Related Proteins
FILE REFERENCE: 4152-1-PUS
CURRENT APPLICATION NUMBER: US/09/462,941
CURRENT FILING DATE: 2000-01-14
PRIOR APPLICATION NUMBER: 60/052,516
PRIOR FILING DATE: 1997-07-14

NUMBER OF SEQ ID NOS: 41
SOFTWARE: Patent Ver. 2.0
SEQ ID NO 1
LENGTH: 191
TYPE: PRT
ORGANISM: Homo sapiens
US-09-462-941-1

Query Match
Best Local Similarity 57.8%; Score 461; DB 4; Length 191;
70.3%; Pred. No. 6.1e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 PPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSSESIP 61
DB 1 PPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSSESIP 60
QY 62 PPSNREETOQKSNLELRLISLLIQSWLEPVQGLRGPRFVNOHLCGS-----HLV 111
DB 61 PPSNREETOQKSNLELRLISLLIQSWLEPVQGLRGPRFVNOHLCGS-----HLV 111
QY 112 ALYVCG--ERGFYTPKTRGIVEQ 134
DB 120 GIQTLMGRLDGG--SPRTGQIFKQ 141

RESULT 4

US-08-383-621-4
Sequence 4, Application US/08383621
Patent No. 5951972

GENERAL INFORMATION:

APPLICANT: Daley, Michael J.
APPLICANT: Buckwalter, Brian L.
APPLICANT: Cady, Susan M.
APPLICANT: Shieh, Hong-Ming
APPLICANT: Bohlen, Peter
APPLICANT: Seddon, Andrew P.
TITLE OF INVENTION: Stabilization Of Somatotropins And Other
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Estelle J. Tsevdos
STREET: 1937 West Main Street, P.O. Box 60
CITY: Stamford
STATE: Connecticut
COUNTRY: U.S.A.
ZIP: 06904-0060

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA: US/08/383,621

APPLICATION NUMBER: US/08/383,621
FILING DATE: 06-FEB-1995

CLASSIFICATION: 514
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/766,142
FILING DATE: 25-SEP-1991

ATTORNEY/AGENT INFORMATION:
NAME: Tsevdos, Estelle J.

REGISTRATION NUMBER: 31,145
REFERENCE/DOCKET NUMBER: 31,278-01

TELECOMMUNICATION INFORMATION:
TELEPHONE: 203-321-2756

TELEFAX: 203-321-2971
TELEX: 203-710-474-4059

INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:

LENGTH: 194 amino acids
TYPE: amino acid

TOPOLOGY: linear
MOLECULE TYPE: Protein

US-08-383-621-4

Query Match 57.8%; Score 461; DB 2; Length 194;
Best Local Similarity 70.3%; Pred. No. 6.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 FFTPLSLRPLFNDNMLRAHRLHQLAFDTYQEFEEAVIIPKQKXSFLONPOTSLSFSISPT 61
DB 4 FFTPLSLRPLFNDNMLRAHRLHQLAFDTYQEFEEAVIIPKQKXSFLONPOTSLSFSISPT 63

QY 62 PSNRRETOQKSNLELRLISLLIQSWLEPVQLGTGFRFVNOHLGCS-----HLYV 111
DB 64 PSNRRETOQKSNLELRLISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLLE 122

QY 112 ALYVCG--ERGFYPTKRGIVEQ 134
DB 123 GIQTLMGRLBDG---SPRTGQIFKQ 144

RESULT 5
US-08-459-906-4
Sequence 4, Application US/08459906
Patent No. 6010999
GENERAL INFORMATION:
APPLICANT: Daley, Michael J.
APPLICANT: Buckwalter, Brian L.
APPLICANT: Casey, Susan M.
APPLICANT: Shieh, Hong-Ming
APPLICANT: Bohlen, Peter
APPLICANT: Seddon, Andrew P.
TITLE OF INVENTION: Stabilization of Scmatotropins and Other
TITLE OF INVENTION: Proteins by Modification of Cysteine Residues
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: American Cyanamid Company
STREET: One Cyanamid Plaza
CITY: Wayne
STATE: New Jersey
COUNTRY: U.S.A.
ZIP: 07470-8426
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,906
FILING DATE: 02-JUN-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Webster, Darryl L.
REGISTRATION NUMBER: 34,276
REFERENCE/DOCKET NUMBER: 31,278-03
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-831-3247
TELEFAX: 201-831-3305
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 194 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULAR TYPE: protein
US-08-459-906-4

Query Match 57.8%; Score 461; DB 3; Length 194;
Best Local Similarity 70.3%; Pred. No. 6.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 FFTPLSLRPLFNDNMLRAHRLHQLAFDTYQEFEEAVIIPKQKXSFLONPOTSLSFSISPT 61
DB 4 FFTPLSLRPLFNDNMLRAHRLHQLAFDTYQEFEEAVIIPKQKXSFLONPOTSLSFSISPT 63

QY 62 PSNRRETOQKSNLELRLISLLIQSWLEPVQLGTGFRFVNOHLGCS-----HLYV 111
DB 123 GIQTLMGRLBDG---SPRTGQIFKQ 144

DB 64 PSNRRETOQKSNLELRLISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLLE 122

QY 112 ALYVCG--ERGFYPTKRGIVEQ 134
DB 123 GIQTLMGRLBDG---SPRTGQIFKQ 144

RESULT 6
US-08-589-028-10
Sequence 10, Application US/08589028
Patent No. 6087129
GENERAL INFORMATION:
APPLICANT: Newgard, Christopher B.
APPLICANT: Halban, Philippe
APPLICANT: No. 6087129mington, Karl D.
APPLICANT: Clark, Samuel A.
APPLICANT: Thigpen, Anice E.
APPLICANT: Quade, Christian
APPLICANT: Kruse, Fred
TITLE OF INVENTION: Recombinant Expression of Proteins From
TITLE OF INVENTION: Secretary Cell Lines
NUMBER OF SEQUENCES: 50
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P. O. Box 4433
CITY: Houston
STATE: TX
COUNTRY: USA
ZIP: 77210-4433
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/589,028
FILING DATE: Concurrently Herewith
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 47,642
REFERENCE/DOCKET NUMBER: UTSD:426\HYL
TELECOMMUNICATION INFORMATION:
TELEPHONE: (512) 418-3000
TELEFAX: (512) 474-7577
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 217 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
US-08-589-028-10

Query Match 57.8%; Score 461; DB 3; Length 217;
Best Local Similarity 70.3%; Pred. No. 7.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 FFTPLSLRPLFNDNMLRAHRLHQLAFDTYQEFEEAVIIPKQKXSFLONPOTSLSFSISPT 61
DB 27 FFTPLSLRPLFNDNMLRAHRLHQLAFDTYQEFEEAVIIPKQKXSFLONPOTSLSFSISPT 86

QY 62 PSNRRETOQKSNLELRLISLLIQSWLEPVQLGTGFRFVNOHLGCS-----HLYV 111
DB 87 PSNRRETOQKSNLELRLISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLLE 145

QY 112 ALYVCG--ERGFYPTKRGIVEQ 134
DB 146 GIQTLMGRLBDG---SPRTGQIFKQ 167

RESULT 7
US-08-784-582-10
Sequence 10, Application US/08784582

Patent No. 6110707
GENERAL INFORMATION:
APPLICANT: Newgard, Christopher B.
APPLICANT: Halban, Philippe A.
APPLICANT: No. 610707mington, Karl D.
APPLICANT: Clark, Samuel A.
APPLICANT: Thigpen, Anice E.
APPLICANT: Quade, Christian
APPLICANT: Kruse, Fred
APPLICANT: McGarity, Dennis
TITLE OF INVENTION: RECOMBINANT EXPRESSION OF PROTEINS FROM
TITLE OF INVENTION: SECRETORY CELL LINES
NUMBER OF SEQUENCES: 79
CORRESPONDENCE ADDRESS:
ADDRESSER: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/784,582
FILING DATE: Concurrently Herewith
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/028,427
FILING DATE: 15-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/589,028
FILING DATE: 19-JAN-1996
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: UTSD:514
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 217 amino acids
TYPE: amino acid
STRANDEDNESS: linear
TOPOLOGY: linear
US-08-784-582-10
Query Match 57.8%; Score 461; DB 3; Length 217;
Best Local Similarity 70.3%; Pred. No. 7.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
QY 2 PPTPLSLRFDVAMLRARLRHQLAFDYYQEFEEAYIPKQKYSFLONPOTSLSSESIST 61
DB 27 PPTPLSLRFDVAMLRARLRHQLAFDYYQEFEEAYIPKQKYSFLONPOTSLSSESIST 86
QY 62 PSNRRETOOKSNLELRISLLISLQSWLEPVOLGTGPRFVNOHLGCS-----HLVE 111
DB 87 PSNRRETOOKSNLELRISLLISLQSWLEPVOLGTGPRFVNOHLGCS-----HLVE 145
QY 112 ALYVCG--ERGFYTPKTRGIVQ 134
DB 146 GIQLMGRLDQ---SPRTGQIFRQ 167
RESULT 8
US-08-785-271-10
Sequence 10, Application US/08785271
GENERAL INFORMATION:
APPLICANT: Newgard, Christopher B.

APPLICANT: Halban, Philippe A.
APPLICANT: Clark, Samuel A.
APPLICANT: Thigpen, Anice E.
APPLICANT: Quade, Christian
APPLICANT: Kruse, Fred
APPLICANT: McGarity, Dennis
TITLE OF INVENTION: RECOMBINANT EXPRESSION OF PROTEINS FROM
TITLE OF INVENTION: SECRETORY CELL LINES
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
ADDRESSER: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/785,271
FILING DATE: Concurrently Herewith
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/589,028
FILING DATE: 19-JAN-1996
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: UTSD:513
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 217 amino acids
TYPE: amino acid
STRANDEDNESS: linear
TOPOLOGY: linear
US-08-785-271-10
Query Match 57.8%; Score 461; DB 3; Length 217;
Best Local Similarity 70.3%; Pred. No. 7.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
QY 2 PPTPLSLRFDVAMLRARLRHQLAFDYYQEFEEAYIPKQKYSFLONPOTSLSSESIST 61
DB 27 PPTPLSLRFDVAMLRARLRHQLAFDYYQEFEEAYIPKQKYSFLONPOTSLSSESIST 86
QY 62 PSNRRETOOKSNLELRISLLISLQSWLEPVOLGTGPRFVNOHLGCS-----HLVE 111
DB 87 PSNRRETOOKSNLELRISLLISLQSWLEPVOLGTGPRFVNOHLGCS-----HLVE 145
QY 112 ALYVCG--ERGFYTPKTRGIVQ 134
DB 146 GIQLMGRLDQ---SPRTGQIFRQ 167
RESULT 9
US-08-759-628-11
Sequence 11, Application US/08759628
Patent No. 6225446
GENERAL INFORMATION:
APPLICANT: Altman, Scott W.
APPLICANT: Rock, Fernando L.
APPLICANT: Bazan, J. Fernando
APPLICANT: Kastelehn, Robert A.
TITLE OF INVENTION: MUTATIONAL VARIANTS OF MAMMALIAN PROTEINS
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSER: DNAX Research Institute

STREET: 901 California Avenue
CITY: Palo Alto
STATE: California
COUNTRY: USA
ZIP: 94304-1104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/759,628
FILING DATE: 05-DEC-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/008,574
FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
NAME: Ching, Edwin P.
REGISTRATION NUMBER: 34,090
REFERENCE/DOCKET NUMBER: DX0552Q
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-852-9196
TELEFAX: 415-496-1200
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 217 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Peptide
LOCATION: 32..53
FEATURE:
NAME/KEY: Peptide
LOCATION: 94..115
FEATURE:
NAME/KEY: Peptide
LOCATION: 133..153
FEATURE:
NAME/KEY: Peptide
LOCATION: 192..210
OTHER INFORMATION: /note="The peptides above are
OTHER INFORMATION: depicted in Figure 1"
US-08-759-628-11

Query Match 57.8%; Score 461; DB 3; Length 217;
Best Local Similarity 70.3%; Pred. No. 7.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
QY 2 PPTPLSLRFDNMLRAHRLHQLAFTYQEFEEAYIPKQKYSFLONPQTSLSFESISPT 61
DB 27 PPTPLSLRFDNMLRAHRLHQLAFTYQEFEEAYIPKQKYSFLONPQTSLSFESISPT 86
QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQGTGPRFVNOHLCGS-----HIVE 111
DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQF-LRSVFANSIYVYASDSNVYDLKDLJE 145
QY 112 ALYIVCG--ERGFYTPKTRGIVEQ 134
DB 146 GIQTLMGRLSDG--SPRTGQIFKQ 167

RESULT 10
US-09-284-878-1
Sequence 1, Application US/09284878
GENERAL INFORMATION:
APPLICANT: Olazaran, Martha Guerrero
APPLICANT: Saldaña, Hugo Barrera
APPLICANT: Salvado, Jose Maria Vidar
TITLE OF INVENTION: Genetically Modified Methylotrophic P. pastoris Yeast for the

TITLE OF INVENTION: Production and Secretion of the Human Growth Hormone
FILE REFERENCE: 1829-0010000
CURRENT APPLICATION NUMBER: US/09/284,878
CURRENT FILING DATE: 1999-07-21
PRIOR APPLICATION NUMBER: PCT/MX97/00033
PRIOR FILING DATE: 1997-10-24
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patent in Ver. 2.1
SEQ ID NO: 1
LENGTH: 217
TYPE: PRT
ORGANISM: Homo sapiens
US-09-284-878-1

Query Match 57.8%; Score 461; DB 3; Length 217;
Best Local Similarity 70.3%; Pred. No. 7.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
QY 2 PPTPLSLRFDNMLRAHRLHQLAFTYQEFEEAYIPKQKYSFLONPQTSLSFESISPT 61
DB 27 PPTPLSLRFDNMLRAHRLHQLAFTYQEFEEAYIPKQKYSFLONPQTSLSFESISPT 86
QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQGTGPRFVNOHLCGS-----HIVE 111
DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQF-LRSVFANSIYVYASDSNVYDLKDLJE 145
QY 112 ALYIVCG--ERGFYTPKTRGIVEQ 134
DB 146 GIQTLMGRLSDG--SPRTGQIFKQ 167

RESULT 11
US-09-929-918-9
Sequence 9, Application US/09929918
Patent No. 677899
GENERAL INFORMATION:
APPLICANT: Kordyum, Vitaliy A.
APPLICANT: Chernykh, Svetlana I.
APPLICANT: Slavchenko, Iryna Yu.
APPLICANT: Vozianov, Oleksandr
TITLE OF INVENTION: PHAGE-DEPENDENT SUPER PRODUCTION OF
TITLE OF INVENTION: BIOLOGICALLY ACTIVE PROTEIN AND PEPTIDES
FILE REFERENCE: PHAGE.006A
CURRENT APPLICATION NUMBER: US/09/929,918
CURRENT FILING DATE: 2001-08-15
PRIOR APPLICATION NUMBER: 09/318,288
PRIOR FILING DATE: 1999-05-25
NUMBER OF SEQ ID NOS: 11
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO: 9
LENGTH: 217
TYPE: PRT
ORGANISM: Homo sapiens
US-09-929-918-9

Query Match 57.8%; Score 461; DB 4; Length 217;
Best Local Similarity 70.3%; Pred. No. 7.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
QY 2 PPTPLSLRFDNMLRAHRLHQLAFTYQEFEEAYIPKQKYSFLONPQTSLSFESISPT 61
DB 27 PPTPLSLRFDNMLRAHRLHQLAFTYQEFEEAYIPKQKYSFLONPQTSLSFESISPT 86
QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQGTGPRFVNOHLCGS-----HIVE 111
DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQF-LRSVFANSIYVYASDSNVYDLKDLJE 145
QY 112 ALYIVCG--ERGFYTPKTRGIVEQ 134
DB 146 GIQTLMGRLSDG--SPRTGQIFKQ 167

RESULT 12

US-09-424-620B-25
Sequence 25, Application US/09424620B
Patent No. 6391585
GENERAL INFORMATION:
APPLICANT: HANIL SYNTHETIC FIBER CO., LTD.
JANG, Ki-Ryong
MOON, Jae-Moong
BAE, Cheon-Soon
YANG, Doo-Suk
LEE, Jee-Mon
TITLE OF INVENTION: Process for preparing recombinant proteins using highly efficient expression vector from Saccharomyces cerevisiae
NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
ADDRESSEE: BACHMAN & LAPOINTE, P.C.
STREET: Suite 1201, 900 Chapel Street
CITY: New Haven
STATE: Connecticut
COUNTRY: U.S.A.
ZIP: 06510-2802
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb storage
COMPUTER: IBM
OPERATING SYSTEM: WINDOWS 95/98
SOFTWARE: MS WORD
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/424,620B
FILING DATE: 24-NOV. 6391585-1999
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 241 amino acids
TOPOLOGY: linear
MOLECULE TYPE: PROTEIN
SEQUENCE DESCRIPTION: SEQ ID NO: 25:
US-09-424-620B-25
Query Match 57.8%; Score 461; DB 3; Length 241;
Best Local Similarity 70.3%; Pred. No. 8.2e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
DB 62 PSNREETQOKSNLELRLISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLLE 111
QY 51 PFTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSESIP 61
DB 111 PSNREETQOKSNLELRLISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLLE 169
QY 112 ALYVCG--ERGFYTPKTRGIVEQ 134
DB 170 GIOTMGRLLEDG--SPRTGQIFKQ 191
RESULT 13
US-09-280-030-66
Sequence 66, Application US/09280030A
Patent No. 6506595
GENERAL INFORMATION:
APPLICANT: Sato, Seiji
APPLICANT: Higashikuni, Naohiko
APPLICANT: Kudo, Toshiyuki
APPLICANT: Kondo, Masaaki
TITLE OF INVENTION: DNA ENCODING NEW FUSION PROTEINS AND PROCESSES FOR THE
TITLE OF INVENTION: PREPARING USEFUL POLYPEPTIDES THROUGH EXPRESSION OF THE
FILE REFERENCE: 382.1026
CURRENT APPLICATION NUMBER: US/09/280,030A
CURRENT FILING DATE: 1999-03-26
EARLIER APPLICATION NUMBER: JP10-87339/1998
EARLIER FILING DATE: 1998-03-31
NUMBER OF SEQ ID NOS: 66

SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 66
LENGTH: 245
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Designated as
OTHER INFORMATION: an amino acid sequence of MWPs2-MWPM20-TEV-G-CH
US-09-280-030-66
Query Match 57.8%; Score 461; DB 4; Length 245;
Best Local Similarity 70.3%; Pred. No. 8.4e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
DB 62 PSNREETQOKSNLELRLISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLLE 111
QY 55 PFTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLQNPQTSLSFSESIP 61
DB 115 PSNREETQOKSNLELRLISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLLE 173
QY 112 ALYVCG--ERGFYTPKTRGIVEQ 134
DB 174 GIOTMGRLLEDG--SPRTGQIFKQ 195
RESULT 14
US-08-784-582-71
Sequence 71, Application US/08784582
Patent No. 6110707
GENERAL INFORMATION:
APPLICANT: Newgard, Christopher B.
APPLICANT: Halban, Philippe A.
APPLICANT: No. 6110707mington, Karl D.
APPLICANT: Clark, Samuel A.
APPLICANT: Thijsen, Antice E.
APPLICANT: Quade, Christian
APPLICANT: Kruse, Fred
APPLICANT: Mcgarity, Dennis
TITLE OF INVENTION: RECOMBINANT EXPRESSION OF PROTEINS FROM
TITLE OF INVENTION: SECRETORY CELL LINES
NUMBER OF SEQUENCES: 79
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/784,582
FILING DATE: Concurrently Herewith
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/028,427
FILING DATE: 15-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/589,028
FILING DATE: 19-04-1996
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: UTSD:514
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 71:

SEQUENCE CHARACTERISTICS:
LENGTH: 274 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
US-08-784-582-71

Query Match
Best Local Similarity 70.3%; Score 461; DB 3; Length 274;
Pred. No. 9.7e-42;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 FFTPLSLRFPNNALRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPQTSLSFSSES IPT 61
DB 27 FFTPLSLRFPNNALRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPQTSLSFSSES IPT 86
QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQLGTRPFVNHLCGS-----HIVE 111
DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDL EE 145
QY 112 ALIVCG--ERGFYTPKTRGIVEQ 134
DB 146 GIQTLMGRLSDG---SPRTGQIFKQ 167

RESULT 15

US-08-784-582-73
Sequence 73, Application US/08784582
Patent No. 6110707
GENERAL INFORMATION:
APPLICANT: Newgard, Christopher B.
APPLICANT: Halban, Philippe A.
APPLICANT: No. 610707/nington, Karl D.
APPLICANT: Clark, Samuel A.
APPLICANT: Thigpen, Antice E.
APPLICANT: Quade, Christian
APPLICANT: Kruse, Fred
APPLICANT: McGarity, Dennis
TITLE OF INVENTION: RECOMBINANT EXPRESSION OF PROTEINS FROM
NUMBER OF SEQUENCES: 79
CORRESPONDENCE ADDRESS:
ADDRESSER: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/784,582
FILING DATE: Concurrently Herewith
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/028,427
FILING DATE: 15-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/589,028
FILING DATE: 19-JAN-1996
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: UMSD:514
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 73:
SEQUENCE CHARACTERISTICS:
LENGTH: 360 amino acids
TYPE: amino acid

STRANDEDNESS:
TOPOLOGY: linear
US-08-784-582-73

Query Match
Best Local Similarity 70.3%; Score 461; DB 3; Length 360;
Pred. No. 1.4e-41;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 FFTPLSLRFPNNALRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPQTSLSFSSES IPT 61
DB 27 FFTPLSLRFPNNALRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPQTSLSFSSES IPT 86
QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQLGTRPFVNHLCGS-----HIVE 111
DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDL EE 145
QY 112 ALIVCG--ERGFYTPKTRGIVEQ 134
DB 146 GIQTLMGRLSDG---SPRTGQIFKQ 167

Search completed: November 2, 2004, 20:24:36
Job time : 37.5314 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: November 2, 2004, 19:59:41; Search time 27.6753 Seconds
(without alignments)
521.495 Million cell updates/sec

Title: US-10-054-873-7

Perfect score: 797
Sequence: 1 MFPTPLSRLEFDNMLRAHR.....IVQCCTSLCSLYQLENYCN 150

Scoring table:

BLOSUM62
Gapop 10.0, Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-Processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database:

1: PIR79:*
2: PIR1:*
3: PIR3:*
4: PIR4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	461	57.8	217	1	STHU
2	460	57.7	217	2	167410
3	426.5	53.5	217	1	STHUV
4	426.5	53.5	256	1	STHUV2
5	407.5	51.1	217	2	167409
6	405	50.8	217	2	167411
7	396	49.7	212	2	167408
8	396	49.7	217	2	153267
9	381	47.8	217	1	1CHUC
10	381	47.8	217	2	E32435
11	359.5	45.1	215	2	A26449
12	310.5	33.0	216	2	B9159
13	307.5	33.6	190	2	PW0140
14	306.5	36.5	190	1	STHO
15	304.5	38.2	216	1	STMS
16	302.5	38.0	216	1	STRT
17	302.5	38.0	216	2	S49483
18	301.5	37.8	190	2	JK0219
19	301.5	37.8	216	1	STPG
20	301.5	37.8	216	2	146145
21	301.5	37.8	216	2	UC4632
22	299.5	37.6	216	2	A37682
23	297.5	37.3	190	1	A61584
24	295.5	37.1	190	2	JS0429
25	289.5	36.3	217	1	STBO
26	289.5	36.3	217	1	STGT
27	289.5	36.3	217	1	STSH
28	289.5	36.3	217	1	S32682
29	278.5	34.9	216	2	UC1514

30	277.5	34.8	110	1	INRB	insulin precursor
31	277.5	34.8	110	2	B42179	insulin precursor
32	275.5	34.6	216	2	A60509	somatotropin precu
33	275	34.5	96	2	PC7082	epidermal growth f
34	273.5	34.3	51	1	INEL	insulin - elephant
35	273.5	34.3	51	1	INMF	insulin - finback
36	273.5	34.3	51	1	INMF	insulin - sperm wh
37	273.5	34.3	110	2	UQ0178	insulin precursor
38	272	34.1	110	2	A42179	insulin precursor
39	271.5	34.1	51	1	INHY	insulin - hamster
40	270	33.9	110	1	IPHU	insulin - hamster
41	268.5	33.7	51	1	INMSP	insulin - Egyptian
42	268.5	33.7	191	2	A60625	somatotropin - gre
43	267.5	33.6	51	2	AS9151	insulin precursor
44	266.5	33.6	105	2	IPBO	insulin precursor
45	265.5	33.3	110	2	I48166	insulin precursor

ALIGNMENTS

RESULT 1

STHU

somatotropin 1 precursor [validated] - human

N:Alternate names: growth hormone 1; hGH-N; pituitary somatotropin

N:Contains: growth hormone 5K peptide; somatotropin 1, long form; somatotropin 1, short

C:Species: Homo sapiens (man)

C:Dates: 24-Apr-1984 #sequence revision 10-Feb-1995 #ext change 09-Jul-2004

C:Accession: A93731; A32435; A3694; A94247; A90051; A93778; A9164; A90217; A

R:Denoto, F.M.; Moore, D.D.; Goodman, H.M.

Nucleic Acids Res. 9, 3719-3730, 1981

A:Title: Human growth hormone DNA sequence and mRNA structure: possible alternative sp

A:Reference number: A93731; MUID:82014939; PMID:6269091

A:Accession: A93731

A:Molecule type: DNA

A:Residues: 1-217 <DEN>

A:Cross-references: UNIPROT:P01241; GB:V00520

A:Note: the 20K short form somatotropin lacks residues 58-72 (32-46 in the active horm

R:Chen, E.Y.; Liao, Y.C.; Smith, D.H.; Barrera-Saldana, H.A.; Gellinas, R.E.; Seeburg,

Genomics 4, 479-497, 1989

A:Title: The human growth hormone locus: nucleotide sequence, biology, and evolution.

A:Reference number: A32435; MUID:89307277; PMID:2744760

A:Accession: A32435

A:Molecule type: DNA

A:Residues: 1-217 <CHB>

A:Cross-references: GB:J03071; MID:9183148; PIDN:AA5549.1; PID:9183149

R:Roskam, W.; Rougeon, F.

Nucleic Acids Res. 7, 305-320, 1979

A:Title: Molecular cloning and nucleotide sequence of the human growth hormone structu

A:Reference number: A93694; MUID:80034477; PMID:386281

A:Accession: A93694

A:Molecule type: mRNA

A:Residues: 1-217 <ROS>

A:Cross-references: GB:V00519

A:Note: 35-Pro was also found

R:Marshall, U.A.; Hallowell, R.A.; Baxter, J.D.; Goodman, H.M.

Science 205, 602-607, 1979

A:Title: Human growth hormone: complementary DNA cloning and expression in bacteria.

A:Reference number: A94247; MUID:79203293; PMID:774996

A:Accession: A94247

A:Molecule type: mRNA

A:Residues: 1-217 <MAR>

R:Li, C.H.; Dixon, J.S.; Liu, W.X.

Arch. Biochem. Biophys. 133, 70-91, 1969

A:Title: Human pituitary growth hormone. XIX. The primary structure of the hormone.

A:Reference number: A90048; MUID:59289202; PMID:5810834

A:Contents: annotation

R:Li, C.H.; Dixon, J.S.

Arch. Biochem. Biophys. 146, 233-236, 1971

A:Title: Human pituitary growth hormone. XXXII. The primary structure of the hormone: r

A:Reference number: A90051; MUID:72183935; PMID:5144027

A:Accession: A90051

A:Molecule type: protein

A:Residues: 27-94,96-217 <LIC>
 R:Hall, H.D.
 Nature New Biol. 230, 90-91, 1971
 A:Title: Revised primary structure for human growth hormone.
 A:Reference number: A93397; MUID:71139765; PMID:5279046
 A:Accession: A93397
 A:Molecule type: protein
 A:Residues: 27-51 <NIA>
 R:Hall, H.D.; Hogan, M.L.; Sauer, R.; Rosenblum, I.Y.; Greenwood, F.C.
 Proc. Natl. Acad. Sci. U.S.A. 68, 866-869, 1971
 A:Title: Sequences of pituitary and placental lactogenic and growth hormones: evolution
 A:Reference number: A93778; MUID:71153968; PMID:5279528
 A:Accession: A93778
 A:Molecule type: protein
 A:Residues: 119-120,157-159 <NI2>
 R:Hall, H.D.
 in Prolactin and Carcinogenesis, Proc. Fourth Tenoux Workshop Prolactin, Griffiths, K.
 A:Title: The chemistry of the human lactogenic hormones.
 A:Reference number: A94427
 A:Accession: A94427
 A:Contents: annotation; somatotropin revision
 R:Bewley, T.A.; Dixon, J.S.; Li, C.H.
 Int. J. Pept. Protein Res. 4, 281-287, 1972
 A:Title: Sequence comparison of human pituitary growth hormone, human chorionic somatoma
 A:Reference number: A91764; MUID:73092028; PMID:4675454
 A:Accession: A91764
 A:Molecule type: protein
 A:Residues: 27-217 <BBM>
 R:Lewis, U.J.; Bonewald, L.F.; Lewis, L.J.
 Biochem. Biophys. Res. Commun. 92, 511-516, 1980
 A:Title: The 20,000 dalton variant of human growth hormone: location of the amino acid c
 A:Reference number: A90217; MUID:80130196; PMID:7356479
 A:Accession: A90217
 A:Contents: somatotropin, 20K short variant
 A:Molecule type: protein
 A:Residues: 46-57,73-80 <LEW>
 R:Chapman, G.F.; Rogers, K.M.; Brittain, T.; Bradshaw, R.A.; Bates, O.J.; Turner, C.; Ca
 J. Biol. Chem. 256, 2395-2401, 1981
 A:Title: The 20,000 molecular weight variant of human growth hormone. Preparation and sc
 A:Reference number: A92311; MUID:8117361; PMID:7462247
 A:Accession: A92311
 A:Molecule type: protein
 A:Residues: 27-57,73-79 <CHA>
 R:Singh, R.N.P.; Seavey, B.K.; Lewis, L.J.; Lewis, U.J.
 J. Protein Chem. 2, 425-436, 1983
 A:Title: Human growth hormone peptide 1-43: isolation from pituitary glands.
 A:Reference number: A61466
 A:Accession: A61466
 A:Molecule type: protein
 A:Residues: 27-69 <SIN>
 A:Note: growth hormone 5K peptide has insulin potentiating activity; its physiological f
 R:Robson, V.M.J.; Ray, I.D.; NG, F.
 Biol. Chem. Hoppe-Seyler 371, 423-431, 1990
 A:Title: Identification of the aspartamide structure in a previously-reported peptide.
 A:Reference number: S09685; MUID:90334745; PMID:2378679
 A:Accession: S09685
 A:Molecule type: protein
 A:Residues: 27-34, 'L', '36-47 <ROB>
 R:de Vos, A.M.; Ultsch, M.; Kossiakoff, A.A.
 Science 255, 306-312, 1992
 A:Title: Human growth hormone and extracellular domain of its receptor: crystal structu
 A:Reference number: A41728; MUID:82196577; PMID:1549776
 A:Accession: A41728
 A:Contents: annotation; X-ray crystallography, 2.8 angstroms
 A:Note: the structure of the complex with growth hormone receptor is described
 R:Gray, G.L.; Balridge, J.S.; McKeown, K.S.; Heyneker, H.L.; Chang, C.N.
 Gene 39, 247-254, 1985
 A:Title: Periplasmic production of correctly processed human growth hormone in Escherich
 A:Reference number: 141126; MUID:86137393; PMID:3312261
 A:Accession: 184549
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-26 <RBS>
 A:Cross-references: GB:M14398; NID:G183158; PIDN:AAA52554.1; PID:G183159

C:Comment: The gene for this hormone is transcribed only in somatotrophic cells of the
 C:Comment: About 90% of somatotropin is the 22K long form.
 C:Gene: GDB:GHI
 A:Cross-references: GDB:119982; OMIM:139230
 A:Map position: 17q23.1-17q23.3
 A:Intons: 4/1; 57/3; 97/3; 152/3
 C:Superfamily: prolactin
 C:Keywords: alternative splicing; hormone; pituitary
 F:1-26/Domain: signal sequence #status predicted <SIG>
 F:27-217/Product: somatotropin 1, long form #status experimental <SOL>
 F:27-69/Product: growth hormone 5K peptide #status experimental <SKP>
 F:27-57,73-217/Product: somatotropin 1, short form #status experimental <SOS>
 F:79-191,208-215/Diulfide bonds: #status experimental

Query Match 57.8%; Score 461; DB 1; Length 217;
 Best Local Similarity 70.3%; Pred. No. 2.8e-37;
 Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 PFTPLSLFLPNAMRAHRLHQLAFDTYQEEAEAYIRKQKYSFLQNPQTSLSFSISPT 61
 DB 27 PFTPLSLFLPNAMRAHRLHQLAFDTYQEEAEAYIRKQKYSFLQNPQTSLSFSISPT 86
 QY 62 PSNRETOOKSNLELRISLLIQSWLEPVQLGPPFVNOHCGS-----HIVE 111
 DB 87 PSNRETOOKSNLELRISLLIQSWLEPVQLGPPFVNOHCGS-----HIVE 145
 QY 112 ALYVCG--ERGFYTPKTRGIVDQ 134
 DB 146 GIQLTLMGRLEDS--SPRTGQIFRQ 167

RESULT 2
 167410
 somatotropin - rhesus macaque
 N:Alternate names: growth hormone
 C:Species: Macaca mulatta (rhesus macaque)
 C:Date: 31-May-1996 #sequence revision 31-May-1996 #text change 09-Jul-2004
 A:Accession: 167410; A05094
 R:Gollos, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.
 Endocrinology 133, 1744-1752, 1993
 A:Title: Cloning of four growth hormone/chorionic somatomotropin-related compleme
 A:Reference number: 153267; MUID:94008724; PMID:8404617
 A:Accession: 167410
 A:Status: translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-217 <RES>
 A:Cross-references: UNIPROT:P33093; GB:L16556; NID:G293114; PIDN:AAA18842.1; PID:G29311
 R:Li, C.H.; Chung, D.; Iam, H.W.; Stein, S.
 Arch. Biochem. Biophys. 245, 287-291, 1986
 A:Title: The primary structure of monkey pituitary growth hormone.
 A:Reference number: A05094; MUID:86129460; PMID:3060959
 A:Accession: A05094
 A:Molecule type: protein
 A:Residues: 27-99, 'Q', 101-178, 'D', 180-217 <LIC>
 A:Note: the monkey species is not identified in the reference
 R:Raben, M.S.
 Science 125, 883-884, 1957
 A:Title: Preparation of growth hormone from pituitaries of man and monkey.
 A:Reference number: A44774
 A:Accession: A44774
 A:Contents: annotation; identification of source organism
 C:Superfamily: prolactin

Query Match 57.7%; Score 460; DB 2; Length 217;
 Best Local Similarity 98.9%; Pred. No. 3.5e-37;
 Matches 90; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 PFTPLSLFLPNAMRAHRLHQLAFDTYQEEAEAYIRKQKYSFLQNPQTSLSFSISPT 61
 DB 27 PFTPLSLFLPNAMRAHRLHQLAFDTYQEEAEAYIRKQKYSFLQNPQTSLSFSISPT 86
 QY 62 PSNRETOOKSNLELRISLLIQSWLEPVQ 92

DB 87 PSNRETOOKSNLELLRISILLIOSWLEPVQ 117

RESULT 3

STHUV

somatotropin 2 precursor - human

N.Alternate names: growth hormone 2; growth hormone variant; hGH-V; placental somatotropin 2, long splice form; somatotropin 2, short splice form

C.Species: Homo sapiens (man)

C.Date: 17-Dec-1983 #sequence_revision 10-Feb-1995 #text_change 09-Jul-2004

C.Accession: D32435; B28072; A01511; I52104; A60711

R.Chen, E.Y.; Liao, Y.C.; Smith, D.H.; Barrera-Salana, H.A.; Gellinas, R.E.; Seeburg, P.

A.Title: The human growth hormone locus: nucleotide sequence, biology, and evolution.

A.Reference number: A32435; MUID:89307277; PMID:2744760

A.Accession: D32435

A.Molecule type: DNA

A.Residues: 1-217 <CHE>

A.Cross-references: UNIPROT:P01242; GB:J03071; NID:G183148; PIND:AAA52552.1; PID:G183152

J.Cooke, N.E.; Ray, J.; Emery, J.G.; Liebhauer, S.A.

A.Title: Two distinct species of human growth hormone-variant mRNA in the human placenta

A.Reference number: A92725; MUID:88243769; PMID:3379057

A.Accession: B28072

A.Molecule type: mRNA

A.Residues: 1-217 <COO>

R.Seeburg, P.H.

DNA 1, 239-249, 1982

A.Title: The human growth hormone gene family: nucleotide sequences show recent divergen

A.Reference number: A01511; MUID:83182010; PMID:7169009

A.Accession: A01511

A.Molecule type: DNA

A.Residues: 1-34, 'P', 36-217 <SEE>

R.Ignotz, A.; Scippo, M.L.; Frankenre, F.; Hennen, G.

Arch. Int. Physiol. Biochim. 96, 63-67, 1988

A.Title: Cloning and nucleotide sequence of placental hGH-V cDNA.

A.Reference number: I52104; MUID:89024984; PMID:2460050

A.Accession: I52104

A.Status: preliminary; translated from GB/EMBL/DBJ

A.Molecule type: mRNA

A.Residues: 1-217 <IGO>

A.Cross-references: GB:M38451; NID:G183179; PIND:AAA35891.1; PID:G183180

R.Frankenre, F.; Scippo, M.L.; Van Beumen, J.; Ignotz, A.; Hennen, G.

J.Clin. Endocrinol. Metab. 71, 15-18, 1990

A.Title: Identification of placental human growth hormone as the growth hormone-V gene

A.Reference number: A60711; MUID:90317018; PMID:2156278

A.Accession: A60711

A.Molecule type: protein

A.Residues: 27-44;46-57 <FRA>

A.Experimental source: tissue placenta

A.Note: partial glycosylation was demonstrated by lectin binding

C.Comment: This gene is expressed by the placenta.

C.Genetics:

A.Gene: GDB:GH2

A.Cross-references: GDB:119983; OMIM:139240

A.Map position: 17q22-17q24

A.Introns: 4/1; 57/3; 97/3; 152/3

C.Superfamily: prolactin

C.Keywords: alternative splicing; glycoprotein; hormone; placenta

F.1-26/Domain: signal sequence #status predicted <SIG>

F.27-217/Product: somatotropin 2, long splice form #status predicted <SOL>

F.27-57,73-217/Product: somatotropin 2, short splice form #status predicted <SOS>

F.79-191,208-215/Dsulfide bonds: #status predicted

F.166/Binding site: carbohydrate (asn) (covalent) #status predicted

Query Match 53.5%; Score 426.5; DB 1; Length 217;

Best Local Similarity 78.1%; Pred. No. 6.3e-34;

Matches 89; Conservative 4; Mismatches 10; Indels 11; Gaps 1;

QY 62 PSNRETOOKSNLELLRISILLIOSWLEPVQ-----GTGPRFVNQHL 104
DB 87 PSNRETOOKSNLELLRISILLIOSWLEPVQLRSVPFANSVLYGADSDVYRHL 140

RESULT 4

STHUV2

somatotropin 2 precursor, splice form 2 - human

N.Alternate names: growth hormone variant-2; placental somatotropin form 2

C.Species: Homo sapiens (man)

C.Date: 30-Sep-1989 #sequence_revision 10-Feb-1995 #text_change 09-Jul-2004

C.Accession: A28072

R.Cooke, N.E.; Ray, J.; Emery, J.G.; Liebhauer, S.A.

J. Biol. Chem. 263, 9001-9006, 1988

A.Title: Two distinct species of human growth hormone-variant mRNA in the human placenta

A.Reference number: A92725; MUID:88243769; PMID:3379057

A.Accession: A28072

A.Molecule type: mRNA

A.Residues: 1-256 <COO>

A.Cross-references: UNIPROT:P01242

A.Note: an alternative splice junction for intron 4 is used

C.Genetics:

A.Gene: GDB:GH2

A.Cross-references: GDB:119983; OMIM:139240

A.Map position: 17q22-17q24

A.Introns: 4/1; 57/3; 97/3; 152/3

C.Superfamily: prolactin

C.Keywords: alternative splicing; hormone; placenta

F.1-26/Domain: signal sequence #status predicted <SIG>

F.27-256/Product: somatotropin 2 splice form 2 #status predicted <MAT>

Query Match 53.5%; Score 426.5; DB 1; Length 256;

Best Local Similarity 78.1%; Pred. No. 7.6e-34;

Matches 89; Conservative 4; Mismatches 10; Indels 11; Gaps 1;

QY 2 PPTPLSLRFDNMLRAHRLHQLAFDPTYOEFEEAYIPKEOKYSFLONPOTSLSFSSEIPT 61

DB 27 PPTPLSLRFDNMLRAHRLHQLAFDPTYOEFEEAYIPKEOKYSFLONPOTSLSFSSEIPT 86

QY 62 PSNRETOOKSNLELLRISILLIOSWLEPVQ-----GTGPRFVNQHL 104

DB 87 PSNRETOOKSNLELLRISILLIOSWLEPVQLRSVPFANSVLYGADSDVYRHL 140

RESULT 5

STHUV2

chorionic somatomammotropin-3 - rhesus macaque

C.Species: Macaca mulatta (rhesus macaque)

C.Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 09-Jul-2004

C.Accession: I67409

R.Golos, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.

Endocrinology 133, 1744-1752, 1993

A.Title: Cloning of four growth hormone/chorionic somatomammotropin-related complements

A.Reference number: I53267; MUID:94008724; PMID:8404617

A.Accession: I67409

A.Status: preliminary; translated from GB/EMBL/DBJ

A.Molecule type: mRNA

A.Residues: 1-217 <RES>

A.Cross-references: UNIPROT:Q07369; GB:U16554; NID:G293112; PIND:AAA18641.1; PID:G29311

Query Match 51.1%; Score 407.5; DB 2; Length 217;

Best Local Similarity 71.9%; Pred. No. 4.3e-32;

Matches 82; Conservative 12; Mismatches 19; Indels 1; Gaps 1;

QY 3 PPTPLSLRFDNMLRAHRLHQLAFDPTYOEFEEAYIPKEOKYSFLONPOTSLSFSSEIPT 62

DB 28 PPTPLSLRFDNMLRAHRLHQLAFDPTYOEFEEAYIPKEOKYSFLONPOTSLSFSSEIPT 87

QY 63 SNRETOOKSNLELLRISILLIOSWLEPVQLTGPRFVNQHLGSHLVEALYIV 116

DB 88 SNRETOOKSNLELLRISILLIOSWLEPVQLTGSVFANNLYGTSSEDAVDLL 140

RESULT 6

157411

Somatotropin - rhesus macaque

N/Alternate names: growth hormone

C/Species: Macaca mulatta (rhesus macaque)

C/Date: 31-May-1996 #sequence_revision 31-May-1996 #ext_change 09-Jul-2004

C/Accession: 157411

R/Golios, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.

Endocrinology 133, 1744-1752, 1993

A/Title: Cloning of four growth hormone/chorionic somatomammotropin-related complementary

A/Reference number: 153267; MUID:94008724; PMID:8404617

A/Accession: 157411

A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: mRNA

A/Residues: 1-217 <RES>

A/Cross-references: UNIPROT:Q07370; GB:U16555; NID:g2933116; PIDN:AAA0180.1; PID:g2933117

C/Superfamily: prolactin

Query Match

Best Local Similarity 50.8%; Score 405; DB 2; Length 217;

Matches 86; Conservative 9; Mismatches 18; Indels 14; Gaps 2;

QY 2 PPTPLSLFDNMLRAHRLHQLAFPTYOEFEEBAYIPKQKYSFLQNPQTSLSFSESIP 61

DB 27 PPTPLSLFDNMLRAHRLHQLAFPTYOEFEEBAYIPKQKYSFLQNPQTSLSFSESIP 86

QY 62 PSNRETOOKSNLELRISLLIQSWLEPVOGTGRFVNQHCGLVEA-----LY 114

DB 87 PSNRETOOKSNLELRISLLIQSWLEPVOF-----LRVFNHVLVHTNSNDIYL 139

QY 115 LVCGERG 121

DB 140 LKLEEG 146

RESULT 7

157408

Chorionic somatomammotropin-2 - rhesus macaque (fragment)

C/Species: Macaca mulatta (rhesus macaque)

C/Date: 31-May-1996 #sequence_revision 31-May-1996 #ext_change 09-Jul-2004

C/Accession: 157408

R/Golios, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.

Endocrinology 133, 1744-1752, 1993

A/Title: Cloning of four growth hormone/chorionic somatomammotropin-related complementat

A/Reference number: 153267; MUID:94008724; PMID:8404617

A/Accession: 157408

A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: mRNA

A/Residues: 1-212 <RES>

A/Cross-references: UNIPROT:Q07368; GB:U16553; NID:g2933110; PIDN:AAA1840.1; PID:g2933111

C/Superfamily: prolactin

Query Match

Best Local Similarity 49.7%; Score 396; DB 2; Length 212;

Matches 74; Conservative 11; Mismatches 5; Indels 0; Gaps 0;

QY 3 PPTPLSLFDNMLRAHRLHQLAFPTYOEFEEBAYIPKQKYSFLQNPQTSLSFSESIP 62

DB 23 PPTPLSLFDNMLRAHRLHQLAFPTYOEFEEBAYIPKQKYSFLQNPQTSLSFSESIP 82

QY 63 SNRETOOKSNLELRISLLIQSWLEPVO 92

DB 83 SNRETOOKSNLELRISLLIQSWLEPVO 112

RESULT 8

153267

Chorionic somatomammotropin-1 - rhesus macaque

C/Species: Macaca mulatta (rhesus macaque)

C/Date: 31-May-1996 #sequence_revision 31-May-1996 #ext_change 09-Jul-2004

C/Accession: 153267

R/Golios, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.

Endocrinology 133, 1744-1752, 1993

A/Title: Cloning of four growth hormone/chorionic somatomammotropin-related complementary

A/Reference number: 153267; MUID:94008724; PMID:8404617

A/Accession: 153267

A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: mRNA

A/Residues: 1-217 <RES>

A/Cross-references: UNIPROT:Q07367; GB:U16552; NID:g2933108; PIDN:AAA1839.1; PID:g2933109

C/Superfamily: prolactin

Query Match

Best Local Similarity 49.7%; Score 396; DB 2; Length 217;

Matches 74; Conservative 11; Mismatches 5; Indels 0; Gaps 0;

QY 3 PPTPLSLFDNMLRAHRLHQLAFPTYOEFEEBAYIPKQKYSFLQNPQTSLSFSESIP 62

DB 28 PPTPLSLFDNMLRAHRLHQLAFPTYOEFEEBAYIPKQKYSFLQNPQTSLSFSESIP 87

QY 63 SNRETOOKSNLELRISLLIQSWLEPVO 92

DB 88 SNRETOOKSNLELRISLLIQSWLEPVO 117

RESULT 9

LCHUC

Chorionotropin A precursor [validated] - human

N/Alternate names: chorionic somatomammotropin 1; placental lactogen

C/Species: Homo sapiens (man)

C/Date: 23-Oct-1981 #sequence_revision 23-Oct-1981 #ext_change 09-Jul-2004

C/Accession: C32435; A94422; T52342; A93833; A93192; A90554; A94427; A61283; I55229; I5

R/Chen, E.Y.; Liao, Y.C.; Smith, D.H.; Barrera-Saldana, H.A.; Gelinas, R.E.; Seeburg, P

Genomics 4, 479-497, 1989

A/Title: The human growth hormone locus: nucleotide sequence, biology, and evolution.

A/Reference number: A32435; MUID:89307277; PMID:2744760

A/Accession: C32435

A/Molecule type: DNA

A/Residues: 1-217 <DNA>

A/Cross-references: UNIPROT:P01243; GB:J03071; NID:G183148; PIDN:AAA5251.1; PID:G18315

R/Goodman, H.M.; Demoto, F.; Fiddle, J.C.; Halliwell, R.A.; Page, G.S.; Smith, S.; Tisc

in Mobilization and Reassembly of Genetic Information, Scott, W.A.; Werner, R.; Joseph,

A/Reference number: A94422

A/Accession: A94422

A/Molecule type: mRNA

A/Residues: 1-217 <GOO>

A/Title: CDNA cloning of human chorionic somatomammotropin-1 mRNA whose transcription w

A/Reference number: 152342; MUID:88209096; PMID:2835050

A/Accession: 152342

A/Status: translated from GB/EMBL/DBJ

A/Molecule type: mRNA

A/Residues: 1-3 <TN>

A/Cross-references: GB:M35419; NID:G506822

R/Sherwood, L.M.; Birstein, Y.; Schachter, I.

Proc. Natl. Acad. Sci. U.S.A. 76, 3819-3823, 1979

A/Title: Primary structure of the NH-2-terminal extra piece of the precursor to human F

A/Reference number: A93833; MUID:80034970; PMID:291043

A/Accession: A93833

A/Molecule type: protein

A/Residues: 1,3-26 <SHB>

A/Experimental source: placenta

R/Shine, J.; Seeburg, P.H.; Martial, J.A.; Baxter, J.D.; Goodman, H.M.

Nature 270, 494-499, 1977

A/Title: Construction and analysis of recombinant DNA for human chorionic somatomammot

A/Reference number: A93192; MUID:78071761; PMID:593368

A/Accession: A93192

A/Molecule type: DNA

A/Residues: 50-217 <SHI>

A/Experimental source: placenta

R/ii, C.H.; Dixon, J.S.; Chung, D.

Arch. Biochem. Biophys. 155, 95-110, 1973

A/Title: Amino acid sequence of human chorionic somatomammotropin.

A/Reference number: A90554; MUID:73201971; PMID:4712450

A:Accession: A90054
 A:Molecule type: protein
 A:Residues: 27-217 <LIC>
 A:Experimental source: placenta
 R:Wali, H.D.
 In prolactin and Carcinogenesis, Proc. Fourth Tenovus Workshop Prolactin, Griffiths, K.,
 A:Title: The chemistry of the human lactogenic hormones.
 A:Reference number: A94427
 A:Accession: A94427
 A:Molecule type: protein
 A:Residues: 27-217 <NTA>
 A:Experimental source: placenta
 R:McC A Bhaidd, N.; Lipton, K.F.
 Biochem. Soc. Trans. 19, 205, 1991
 A:Title: Catechol-O-methyltransferase from human placenta: purification and some properties
 A:Reference number: A61283; PMID:91244006; PMID:2037148
 A:Accession: A61283
 A:Molecule type: protein
 A:Residues: 27-46 <NIC>
 A:Note: chorionamniotopin apparently copurified with placental catechol-O-methyltransferase
 R:Sherwood, L.M.; Handwerker, S.; McLaurin, W.D.; Lanner, M.
 Nature New Biol. 233, 59-61, 1971
 A:Title: Amino-acid sequence of human placental lactogen.
 A:Reference number: A93401; PMID:72016313; PMID:5286363
 A:Contents: annotation
 R:Sherwood, L.M.; Handwerker, S.; McLaurin, W.D.; Lanner, M.
 Nature New Biol. 235, 64, 1972
 A:Reference number: A93405
 A:Contents: annotation
 R:Schneider, A.B.; Kowaleki, K.; Russell, J.; Sherwood, L.M.
 J. Biol. Chem. 254, 3782-3787, 1979
 A:Title: Identification of the interchain disulfide bonds of dimeric human placental lac
 A:Reference number: A92251; PMID:79173081; PMID:438159
 A:Contents: annotation; dimeric disulfide bonds
 R:Selby, M.J.; Barra, A.; Baxter, J.D.; Bell, G.I.; Eberhardt, N.L.
 J. Biol. Chem. 259, 13131-13138, 1984
 A:Title: Analysis of a major human chorionic somatomammotropin gene. Evidence for two fu
 A:Reference number: 155229; PMID:85030426; PMID:6208192
 A:Accession: 155229
 A:Status: translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-217 <RES>
 A:Cross-references: GB:X02401; NID:G181120; PIDN:AAA5215.1; PID:G181121
 R:Seeburg, P.H.; Shine, J.; Martial, J.A.; Ullrich, A.; Goodman, H.
 Trans. Assoc. Physicicans 90, 109-116, 1977
 A:Title: Nucleotide sequence of a human gene coding for a polypeptide hormone.
 A:Reference number: 159658; PMID:79160787; PMID:611657
 A:Accession: 159658
 A:Status: translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 160-217 <RE2>
 A:Cross-references: GB:M25118; NID:G181124; PIDN:AAA35721.1; PID:G181125
 C:Genetics:
 A:Gene: GDB:CSH1
 A:Cross-references: GDB:119084; OMIM:150200
 A:Map position: 17q22-17q24
 A:Introns: 4/1; 57/3; 97/3; 152/3
 C:Superfamily: prolactin
 C:Keywords: hormone; placenta
 F:1-26/Domain: signal sequence #status experimental <SIG>
 F:27-217/Product: chorionamniotopin A #status experimental <MAT>
 F:79-191/Disulfide bonds: #status experimental
 F:208-215/Disulfide bonds: (in monomeric form) #status experimental
 F:208-215/Disulfide bonds: interchain (to 215 in dimeric form) #status experimental
 F:215/Disulfide bonds: interchain (to 208 in dimeric form) #status experimental

Query Match 47.8%; Score 381; DB 1; Length 217;
 Best Local Similarity 82.0%; Pred. No. 1.6e-29;
 Matches 73; Conservative 8; Mismatches 8; Indels 0; Gaps 0;

QY 4 TTPSRFLPDNAMLRAHRLHQLAFTYQEFEEAYIPKQKXSFLONPQTSLSFSESIPTPS 63
 DB 29 TVPLSRFLPDHMLQAHRAHQLAIDTYQEFEEYIPKQKXSFLOHDSQTSFCSDSIPTPS 88

QY 64 NREETQOKSNLELRISLLILQSWLEPVQ 92
 DB 89 NMEETQOKSNLELRISLLILQSWLEPV 117
 RESULT 10
 E32435
 chorionamniotopin B precursor - human
 N.Alternate names: chorionic somatomammotropin 2
 C.Species: Homo sapiens (man)
 C.Date: 29-Dec-1989 #sequence_revision 29-Dec-1989 #text_change 09-Jul-2004
 C.Accession: E32435
 R:Chen, E.Y.; Liao, Y.C.; Smith, D.H.; Barrera-Saldana, H.A.; Gellinas, R.E.; Seeburg,
 Genomics 4, 479-497, 1989
 A:Title: The human growth hormone locus: nucleotide sequence, biology, and evolution.
 A:Reference number: A32435; PMID:8930727; PMID:2744760
 A:Accession: E32435
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-217 <CHE>
 A:Cross-references: UNIPROT:Q14407; GB:J03071; NID:G183148; PIDN:AAA52553.1; PID:G1831
 C:Genetics:
 A:Gene: GDB:CSH2
 A:Cross-references: GDB:119813; OMIM:118820
 A:Map position: 17q22-17q24
 C:Superfamily: prolactin

Query Match 47.8%; Score 381; DB 2; Length 217;
 Best Local Similarity 82.0%; Pred. No. 1.6e-29;
 Matches 73; Conservative 8; Mismatches 8; Indels 0; Gaps 0;

QY 4 TTPSRFLPDNAMLRAHRLHQLAFTYQEFEEAYIPKQKXSFLONPQTSLSFSESIPTPS 63
 DB 29 TVPLSRFLPDHMLQAHRAHQLAIDTYQEFEEYIPKQKXSFLOHDSQTSFCSDSIPTPS 88
 QY 64 NREETQOKSNLELRISLLILQSWLEPVQ 92
 DB 89 NMEETQOKSNLELRISLLILQSWLEPV 117

RESULT 11

A26449
 chorionamniotopin precursor (allele hCS-3) - human
 C.Species: Homo sapiens (man)
 C.Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 09-Jul-2004
 C.Accession: A26449
 R:Hirt, H.; Krimelman, J.; Birnbaum, M.J.; Chen, E.Y.; Seeburg, P.H.; Eberhardt, N.L.; E
 DNA 6, 59-70, 1987
 A:Title: The human growth hormone gene locus: structure, evolution, and allelic variati
 A:Reference number: A26449; PMID:6761235; PMID:3030680
 A:Accession: A26449
 A:Molecule type: DNA
 A:Residues: 1-215 <HIR>
 A:Cross-references: UNIPROT:P01243
 C:Superfamily: prolactin
 F:1-26/Domain: signal sequence #status predicted <SIG>
 F:27-215/Product: chorionamniotopin, hCS-3 allele #status predicted <MAT>

Query Match 45.1%; Score 359.5; DB 2; Length 215;
 Best Local Similarity 80.5%; Pred. No. 1.9e-27;
 Matches 70; Conservative 8; Mismatches 8; Indels 1; Gaps 1;

QY 4 TTPSRFLPDNAMLRAHRLHQLAFTYQEFEEAYIPKQKXSFLONPQTSLSFSESIPTPS 63
 DB 29 TVPLSRFLPDHMLQAHRAHQLAIDTYQEFEEYIPKQKXSFLOHDSQTSFCSDSIPTPS 88
 QY 64 NREETQOKSNLELRISLLILQSWLEPV 90
 DB 89 NMEETQOKSNLELRISLLILQSWLEPV 114

RESULT 12

B49159

somatotropin - golden hamster

N:Alternate names: growth hormone

C:Species: Mesocricetus auratus (golden hamster)

C>Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004

C:Accession: B49159

R:Southard, J.N.; Sanchez-Dimenez, F.; Campbell, G.T.; Talamantes, F.

R:Endocrinology 129, 2965-2971, 1991

A:Title: Sequence and expression of hamster prolactin and growth hormone messenger RNAs.

A:Reference number: A49159; MUID:92063850; PMID:1954881

A:Accession: B49159

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-216 <SD>

A:Cross-references: UNIPROT:P37886; GB:S66299; NID:G239355; PIDD:AA820368.1; PID:G239356

A>Note: sequence extracted from NCBI backbone (NCBI:66299; NCBI:P:66300)

C:Superfamily: prolactin

Query Match

Best Local Similarity 39.0%; Score 310.5; DB 2; Length 216;

Matches 61; Conservative 13; Mismatches 16; Indels 1; Gaps 1;

Db

2 FPTPLSLRFDNAMLRAHRLHQAFTYQEFEEAYIPKQKYSFLQNPQTSLSFSESPT 61

27 FPMPLSLSLFANAVLRAQHQLADTYKEFERAYIPGQRYSLQNAQAFCSSETIPA 85

Qy

62 PSNRETOOKSNLELRISLLIQSWLEPVQ 92

86 PTGKEFAQQRSDWELRLFSLLIQSWLGPVQ 116

Db

RESULT 13

PNO140

somatotropin - sei whale

N:Alternate names: growth hormone

C:Species: Balenoptera borealis (sei whale)

C>Date: 07-May-1993 #sequence_revision 07-May-1993 #text_change 09-Jul-2004

C:Accession: PNO140

R:Yudaev, N.A.; Pankov, Y.A.; Bulatov, A.A.; Osipova, T.A.

R:Biokhimiya 47, 1059-1069, 1982

A:Title: Amino acid sequence of sei whale somatotropin.

A:Reference number: PNO140; MUID:83000569; PMID:7115813

A:Accession: PNO140

A:Molecule type: protein

A:Residues: 1-190 <YUD>

A:Cross-references: UNIPROT:P33092

A>Note: article in Russian with English abstract

C:Superfamily: prolactin

C:Keywords: growth factor; hormone

F:52-163,180-188/Disulfide bonds: #status predicted

Query Match

Best Local Similarity 38.6%; Score 307.5; DB 2; Length 190;

Matches 61; Conservative 14; Mismatches 15; Indels 1; Gaps 1;

Db

2 FPTPLSLRFDNAMLRAHRLHQAFTYQEFEEAYIPKQKYSFLQNPQTSLSFSESPT 61

1 FPMPLSLSLFANAVLRAQHQLADTYKEFERAYIPGQRYSLQNAQAFCSSETIPA 59

Qy

62 PSNRETOOKSNLELRISLLIQSWLEPVQ 92

60 PANDDEAQRSDWELRLFSLLIQSWLGPVQ 90

Db

RESULT 14

STHO

somatotropin - horse

N:Alternate names: growth hormone

C:Species: Equus caballus (domestic horse)

C>Date: 13-Jul-1981 #sequence_revision 13-Jul-1981 #text_change 23-Aug-1996

C:Accession: A01772; A91955; A01383; A90240; A01514

R:Zakari, M.M.; Poskus, E.; Langton, A.A.; Ferrara, P.; Santome, J.A.; Dellacha, J.M.; Pa

Int. J. Pept. Protein Res. 8, 435-444, 1976

A:Title: Primary structure of equine growth hormone.

A:Reference number: A91772; MUID:77005410; PMID:965151

A:Accession: A91772

A:Molecule type: protein

A:Residues: 1-190 <ZAK>

R:Zakari, M.M.; Poskus, E.; Dellacha, J.M.; Paladini, A.C.; Santome, J.A.

R:FEBS Lett. 34, 353-355, 1973

A:Title: The amino acid sequence of equine growth hormone.

A:Reference number: A91395; MUID:74020362; PMID:4747849

A:Accession: A91395

A:Molecule type: protein

A:Residues: 1-190 <ZAK>

R:Zakari, M.M.; Poskus, E.; Dellacha, J.M.; Paladini, A.C.; Santome, J.A.

R:FEBS Lett. 25, 77-82, 1972

A:Title: Amino acid sequences around the cystine residues in equine growth hormone.

A:Reference number: A91383

A:Accession: A91383

A:Molecule type: protein

A:Residues: 42-69;157-190 <ZAK>

R:Oliver, L.; Hartree, A.S.

R:Biochem. J. 109, 19-24, 1968

A:Title: Amino acid sequences around the cystine residues in horse growth hormone.

A:Reference number: A90240; MUID:68368390; PMID:4876100

A:Accession: A90240

A:Molecule type: protein

A:Residues: 176-190 <OLI>

C:Superfamily: prolactin

C:Keywords: hormone; pituitary

F:52-163,180-188/Disulfide bonds: #status experimental

Query Match

Best Local Similarity 38.5%; Score 306.5; DB 1; Length 190;

Matches 60; Conservative 14; Mismatches 17; Indels 1; Gaps 1;

Db

2 FPTPLSLRFDNAMLRAHRLHQAFTYQEFEEAYIPKQKYSFLQNPQTSLSFSESPT 61

1 FPMPLSLSLFANAVLRAQHQLADTYKEFERAYIPGQRYSLQNAQAFCSSETIPA 59

Qy

62 PSNRETOOKSNLELRISLLIQSWLEPVQ 93

60 PTGKEFAQQRSDWELRLFSLLIQSWLGPVQ 91

Db

RESULT 15

STMS

somatotropin precursor - mouse

N:Alternate names: growth hormone

C:Species: Mus musculus (house mouse)

C>Date: 30-Sep-1987 #sequence_revision 30-Sep-1987 #text_change 09-Jul-2004

C:Accession: B23911

R:Linzer, D.I.H.; Talamantes, F.

R:J. Biol. Chem. 260, 9574-9579, 1985

A:Title: Nucleotide sequence of mouse prolactin and growth hormone mRNAs and expression

A:Reference number: A92548; MUID:85261358; PMID:2991252

A:Accession: B23911

A:Molecule type: mRNA

A:Residues: 1-216 <LIN>

A:Cross-references: UNIPROT:P06680; GB:X02891; GB:X03232; NID:951067; PIDD:CAA26650.1;

C:Superfamily: prolactin

C:Keywords: anterior pituitary; growth factor; hormone

F:1-26/Domain: signal sequence #status predicted <SIG>

F:27-216/Product: somatotropin #status predicted <STN>

F:78-189,206-214/Disulfide bonds: #status predicted

Query Match

Best Local Similarity 38.2%; Score 304.5; DB 1; Length 216;

Matches 59; Conservative 14; Mismatches 17; Indels 1; Gaps 1;

Db

2 FPTPLSLRFDNAMLRAHRLHQAFTYQEFEEAYIPKQKYSFLQNPQTSLSFSESPT 61

27 FPMPLSLSLFANAVLRAQHQLADTYKEFERAYIPGQRYSLQNAQAFCSSETIPA 85

Qy

62 PSNRETOOKSNLELRISLLIQSWLEPVQ 92

Sat Nov 6 18:59:33 2004

us-10-054-873-7.rpr

Page 7

DB 86 PRCRQAQRTDMLRPSLLIQSWLGPVQ 116

Search completed: November 2, 2004, 20:22:16
JOB time : 27.6753 secs

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Sat Nov 6 18:59:32 2004

us-10-054-873-7.rapb

Page 1

GenCore version 5.1.6
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CM protein - protein search, using sw model

Run on: November 2, 2004, 20:20:47 ; Search time 112.362 Seconds
(without alignments)
432.820 Million cell updates/sec

Title: US-10-054-873-7

Sequence: 1 MFPTPLSRPLFDNMLRAHR.....ITVEQCTSTCSLYOLENYCN 150

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 1370721 seqs, 324215800 residues

Total number of hits satisfying chosen parameters: 1370721

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: Published Applications_AA*

1: /cgn2_6/ptodata/1/pubppa/US07_PUBCOMB.pep.*
2: /cgn2_6/ptodata/1/pubppa/US07_PUBCOMB.pep.*
3: /cgn2_6/ptodata/1/pubppa/US06_PUBCOMB.pep.*
4: /cgn2_6/ptodata/1/pubppa/US06_PUBCOMB.pep.*
5: /cgn2_6/ptodata/1/pubppa/US07_PUBCOMB.pep.*
6: /cgn2_6/ptodata/1/pubppa/US07_PUBCOMB.pep.*
7: /cgn2_6/ptodata/1/pubppa/US08_PUBCOMB.pep.*
8: /cgn2_6/ptodata/1/pubppa/US08_PUBCOMB.pep.*
9: /cgn2_6/ptodata/1/pubppa/US09_PUBCOMB.pep.*
10: /cgn2_6/ptodata/1/pubppa/US09_PUBCOMB.pep.*
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16: /cgn2_6/ptodata/1/pubppa/US10_PUBCOMB.pep.*
17: /cgn2_6/ptodata/1/pubppa/US10_PUBCOMB.pep.*
18: /cgn2_6/ptodata/1/pubppa/US10_PUBCOMB.pep.*
19: /cgn2_6/ptodata/1/pubppa/US60_PUBCOMB.pep.*
20: /cgn2_6/ptodata/1/pubppa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	797	100.0	150	US-10-054-873-7	Sequence 7, Appli
2	555.5	69.7	107	US-10-054-873-6	Sequence 6, Appli
3	470	59.0	92	US-10-054-873-2	Sequence 2, Appli
4	470	59.0	134	US-09-819-094-24	Sequence 24, Appli
5	470	59.0	134	US-10-714-067-24	Sequence 24, Appli
6	466	58.5	188	US-10-621-693-18	Sequence 18, Appli
7	466	58.5	192	US-09-819-094-23	Sequence 23, Appli
8	466	58.5	192	US-10-621-693-8	Sequence 8, Appli
9	466	58.5	192	US-10-621-693-78	Sequence 78, Appli
10	466	58.5	192	US-10-621-693-86	Sequence 86, Appli
11	466	58.5	192	US-10-714-067-23	Sequence 23, Appli
12	466	58.5	193	US-10-621-693-42	Sequence 42, Appli
13	466	58.5	206	US-10-621-693-72	Sequence 72, Appli

14	466	58.5	391	US-10-621-693-51	Sequence 51, Appli
15	466	58.5	574	US-10-621-693-32	Sequence 32, Appli
16	466	58.5	576	US-10-621-693-39	Sequence 39, Appli
17	466	58.5	599	US-10-621-693-53	Sequence 53, Appli
18	466	58.5	786	US-10-621-693-55	Sequence 55, Appli
19	466	58.5	810	US-10-621-693-76	Sequence 76, Appli
20	466	58.2	191	US-10-658-834A-875	Sequence 875, App
21	463	58.1	191	US-10-658-834A-866	Sequence 866, App
22	463	58.1	191	US-10-658-834A-876	Sequence 876, App
23	463	58.1	191	US-10-658-834A-887	Sequence 887, App
24	462	58.0	191	US-10-658-834A-867	Sequence 867, App
25	462	58.0	191	US-10-658-834A-881	Sequence 881, App
26	462	58.0	191	US-10-658-834A-888	Sequence 888, App
27	461	57.8	191	US-09-984-010-23	Sequence 23, Appli
28	461	57.8	191	US-10-153-207-1	Sequence 1, Appli
29	461	57.8	191	US-10-400-377-1	Sequence 1, Appli
30	461	57.8	191	US-10-400-708-1	Sequence 1, Appli
31	461	57.8	191	US-10-298-148-1	Sequence 1, Appli
32	461	57.8	191	US-10-646-798-2	Sequence 2, Appli
33	461	57.8	191	US-10-621-693-21	Sequence 21, Appli
34	461	57.8	191	US-10-621-693-80	Sequence 80, Appli
35	461	57.8	191	US-10-621-693-80	Sequence 80, Appli
36	461	57.8	191	US-10-621-693-82	Sequence 82, Appli
37	461	57.8	191	US-10-621-693-84	Sequence 84, Appli
38	461	57.8	191	US-10-718-340-1	Sequence 1, Appli
39	461	57.8	191	US-10-658-834A-868	Sequence 868, App
40	461	57.8	191	US-10-658-834A-869	Sequence 869, App
41	461	57.8	191	US-10-658-834A-870	Sequence 870, App
42	461	57.8	191	US-10-658-834A-871	Sequence 871, App
43	461	57.8	191	US-10-658-834A-884	Sequence 884, App
44	461	57.8	191	US-10-658-834A-884	Sequence 884, App
45	461	57.8	191	US-10-658-834A-885	Sequence 885, App

ALIGNMENTS

RESULT 1
US-10-054-873-7
; Sequence 7, Application US/10054873
; Publication No. US20020164712A1
; GENERAL INFORMATION:
; APPLICANT: Gan, Zhong Ru
; TITLE OF INVENTION: Chimeric Protein Containing an
; Intramolecular Chaperone-Like Sequence
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Townsend and Townsend and Crew LLP
; STREET: Two Embarcadero Center, Eighth Floor
; CITY: San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94111-3834
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/054,873
; FILING DATE: 22-Jan-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/CN98/00052
; FILING DATE: 31-MAR-1998
; APPLICATION NUMBER: US 09/423,100
; FILING DATE: 11-DEC-2000
; ATTORNEY/AGENT INFORMATION:
; NAME: Mycroft, Frank J
; REGISTRATION NUMBER: 46,946
; REFERENCE/DOCKET NUMBER: 020167-0001300S
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:

LENGTH: 150 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 7:
US-10-054-873-7

Query Match 100.0%; Score 797; DB 13; Length 150;
Best Local Similarity 100.0%; Pred. No. 2e-78;
Matches 150; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MFPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPOTSISFSESIP 60
DB 1 MFPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPOTSISFSESIP 60
QY 61 TPSNEETQOKSNLELRISILLIQSWLEPVQGTGRFVNQHLGSHLVEALYVCGER 120
DB 61 TPSNEETQOKSNLELRISILLIQSWLEPVQGTGRFVNQHLGSHLVEALYVCGER 120
QY 121 GFFYTPKTRGIVEQCCTISCSLYOLENYCN 150
DB 121 GFFYTPKTRGIVEQCCTISCSLYOLENYCN 150

RESULT 2

US-10-054-873-6
Sequence 6, Application US/10054873
Publication No. US20020164712A1

GENERAL INFORMATION:

APPLICANT: Gan, Zhong Ru

TITLE OF INVENTION: Chimeric Protein Containing an

Intramolecular Chaperone-Like Sequence

NUMBER OF SEQUENCES: 7

CORRESPONDENCE ADDRESS:

ADDRESS: Townsend and Townsend and Crew LLP

STREET: Two Embarcadero Center, Eighth Floor

CITY: San Francisco

STATE: California

COUNTRY: USA

ZIP: 94111-3834

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/054,873

FILING DATE: 22-Jan-2002

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: NO PCT/CN98/00052

FILING DATE: 31-MAR-1998

APPLICATION NUMBER: US 09/423,100

FILING DATE: 11-DEC-2000

ATTORNEY/AGENT INFORMATION:

NAME: Mycroft, Frank J

REGISTRATION NUMBER: 46,946

REFERENCE/DOCKET NUMBER: 020167-000130US

INFORMATION FOR SEQ ID NO: 6:

SEQUENCE CHARACTERISTICS:

LENGTH: 107 amino acids

TYPE: amino acid

STRANDEDNESS: <Unknown>

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 6:

US-10-054-873-6

Query Match 69.7%; Score 555.5; DB 13; Length 107;
Best Local Similarity 71.3%; Pred. No. 2.3e-52;
Matches 107; Conservative 0; Mismatches 0; Indels 43; Gaps 1;

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DB 1 MFPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPOTSISFSESIP 60
QY 61 TPSNEETQOKSNLELRISILLIQSWLEPVQGTGRFVNQHLGSHLVEALYVCGER 120
DB 61 TPSNEETQOKSNLELRISILLIQSWLEPVQGTGRFVNQHLGSHLVEALYVCGER 120
QY 121 GFFYTPKTRGIVEQCCTISCSLYOLENYCN 150
DB 121 GFFYTPKTRGIVEQCCTISCSLYOLENYCN 150

Query Match 100.0%; Score 470; DB 13; Length 92;
Best Local Similarity 100.0%; Pred. No. 3.8e-43;
Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 3

US-10-054-873-2
Sequence 2, Application US/10054873
Publication No. US20020164712A1

GENERAL INFORMATION:

APPLICANT: Gan, Zhong Ru

TITLE OF INVENTION: Chimeric Protein Containing an

Intramolecular Chaperone-Like Sequence

NUMBER OF SEQUENCES: 7

CORRESPONDENCE ADDRESS:

ADDRESS: Townsend and Townsend and Crew LLP

STREET: Two Embarcadero Center, Eighth Floor

CITY: San Francisco

STATE: California

COUNTRY: USA

ZIP: 94111-3834

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/054,873

FILING DATE: 22-Jan-2002

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: NO PCT/CN98/00052

FILING DATE: 31-MAR-1998

APPLICATION NUMBER: US 09/423,100

FILING DATE: 11-DEC-2000

ATTORNEY/AGENT INFORMATION:

NAME: Mycroft, Frank J

REGISTRATION NUMBER: 46,946

REFERENCE/DOCKET NUMBER: 020167-000130US

INFORMATION FOR SEQ ID NO: 2:

SEQUENCE CHARACTERISTICS:

LENGTH: 92 amino acids

TYPE: amino acid

STRANDEDNESS: <Unknown>

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 2:

US-10-054-873-2

Query Match 59.0%; Score 470; DB 13; Length 92;
Best Local Similarity 100.0%; Pred. No. 3.8e-43;
Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MFPTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKEOKYSFLQNPOTSISFSESIP 60
QY 61 TPSNEETQOKSNLELRISILLIQSWLEPVQGTGRFVNQHLGSHLVEALYVCGER 120
DB 61 TPSNEETQOKSNLELRISILLIQSWLEPVQGTGRFVNQHLGSHLVEALYVCGER 120
QY 121 GFFYTPKTRGIVEQCCTISCSLYOLENYCN 150
DB 121 GFFYTPKTRGIVEQCCTISCSLYOLENYCN 150

RESULT 4
US-09-819-094-24
Sequence 24, Application US/09819094

```
Publication No. US20030186382A1
GENERAL INFORMATION:
APPLICANT: Weiner, Richard I.
APPLICANT: Martini, Joseph A.
APPLICANT: Struman, Ingrid
APPLICANT: Taylor, Robert
APPLICANT: Bentzien, Frauke
TITLE OF INVENTION: No. US20030186382A1 Antiangiogenic Peptide Agents and Their
TITLE OF INVENTION: Therapeutic and Diagnostic Use
FILE REFERENCE: USCF-018/02US
CURRENT APPLICATION NUMBER: US/09/819,094
PRIOR FILING DATE: 2001-03-27
PRIOR FILING DATE: 1998-05-12
PRIOR FILING DATE: 1997-05-12
NUMBER OF SEQ ID NOS: 34
SEQ ID NO 24
LENGTH: 134
TYPE: PRT
ORGANISM: Homo sapiens
US-09-819-094-24
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Query Match 59.0%; Score 470; DB 10; Length 134;
Best Local Similarity 100.0%; Pred. No. 6.1e-43;
Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY 61 TPSNREETOQKSNLELRISILLIOSWLEPVQ 92
DB 61 TPSNREETOQKSNLELRISILLIOSWLEPVQ 92
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RESULT 5
US-10-714-067-24
Sequence 24, Application US/10714067
Publication No. US20040077054A1
GENERAL INFORMATION:
APPLICANT: Weiner, Richard I.
APPLICANT: Martini, Joseph A.
APPLICANT: Struman, Ingrid
APPLICANT: Taylor, Robert
APPLICANT: Bentzien, Frauke
TITLE OF INVENTION: Novel Antiangiogenic Peptide Agents and Their
TITLE OF INVENTION: Therapeutic and Diagnostic Use
FILE REFERENCE: USCF-018/02US
CURRENT APPLICATION NUMBER: US/10/714,067
PRIOR FILING DATE: 2003-11-14
PRIOR APPLICATION NUMBER: US/09/819,094
PRIOR FILING DATE: 2001-03-27
PRIOR APPLICATION NUMBER: 09/076,675
PRIOR FILING DATE: 1998-05-12
PRIOR APPLICATION NUMBER: 60/046,394
PRIOR FILING DATE: 1997-05-12
NUMBER OF SEQ ID NOS: 34
SEQ ID NO 24
LENGTH: 134
TYPE: PRT
ORGANISM: Homo sapiens
US-10-714-067-24
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Query Match 59.0%; Score 470; DB 15; Length 134;
Best Local Similarity 100.0%; Pred. No. 6.1e-43;
Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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QY 61 TPSNREETOQKSNLELRISILLIOSWLEPVQ 92
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DB 61 TPSNREETOQKSNLELRISILLIOSWLEPVQ 92
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RESULT 6
US-10-621-693-18
Sequence 18, Application US/10621693
Publication No. US20040059053A1
GENERAL INFORMATION:
APPLICANT: Genetide Pharmaceuticals, Inc.
APPLICANT: Bussell, Stuart
TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQU
TITLE OF INVENTION: DIRECT FUSIONS OR WITH LINKERS
FILE REFERENCE: GNT-00101.P.1-US
CURRENT APPLICATION NUMBER: US/10/621,693
PRIOR FILING DATE: 2003-07-16
PRIOR APPLICATION NUMBER: US 60/396,466
PRIOR FILING DATE: 2002-07-16
NUMBER OF SEQ ID NOS: 86
SOFTWARE: PatentIn version 3.0
SEQ ID NO 18
LENGTH: 188
TYPE: PRT
ORGANISM: Artificial
FEATURE:
OTHER INFORMATION: synthetic sequence
US-10-621-693-18
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Query Match 58.5%; Score 466; DB 15; Length 188;
Best Local Similarity 70.5%; Pred. No. 2.6e-42;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;
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QY 1 MPTTIPSLRPLDPMAMRAHRLHQLAFDPTQGFEEAYIPKQKYSFLQNPOTSLSFSISIP 60
DB 1 MPTTIPSLRPLDPMAMRAHRLHQLAFDPTQGFEEAYIPKQKYSFLQNPOTSLSFSISIP 60
QY 61 TPSNREETOQKSNLELRISILLIOSWLEPVQ 92
DB 61 TPSNREETOQKSNLELRISILLIOSWLEPVQ 92
QY 111 EALYLVCG-ERGFYTPKTRGIVEQ 134
DB 120 EGIOTLMGRLEDDG--SPRTGQIFKQ 142
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RESULT 7
US-09-819-094-23
Sequence 23, Application US/09819094
Publication No. US20030186382A1
GENERAL INFORMATION:
APPLICANT: Weiner, Richard I.
APPLICANT: Martini, Joseph A.
APPLICANT: Struman, Ingrid
APPLICANT: Taylor, Robert
APPLICANT: Bentzien, Frauke
TITLE OF INVENTION: No. US20030186382A1 Antiangiogenic Peptide Agents and Their
TITLE OF INVENTION: Therapeutic and Diagnostic Use
FILE REFERENCE: USCF-018/02US
CURRENT APPLICATION NUMBER: US/09/819,094
PRIOR FILING DATE: 2001-03-27
PRIOR APPLICATION NUMBER: 09/076,675
PRIOR FILING DATE: 1998-05-12
PRIOR APPLICATION NUMBER: 60/046,394
PRIOR FILING DATE: 1997-05-12
NUMBER OF SEQ ID NOS: 34
SEQ ID NO 23
LENGTH: 192
TYPE: PRT
ORGANISM: Homo sapiens
US-09-819-094-23
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Query Match 58.5%; Score 466; DB 10; Length 192;
Best Local Similarity 70.5%; Pred. No. 2.7e-42;
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Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

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Db 1 MPTPLSLFNDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSESIP 60

QY 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

Db 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134

Db 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 8

US-10-621-693-8

Sequence 8, Application US/10621693

Publication No. US20040059093A1

GENERAL INFORMATION:

APPLICANT: Gentide Biopharmaceuticals, Inc.

APPLICANT: Bussell, Stuart

TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENCES

FILE REFERENCE: GNT-00101.P.1-US

CURRENT FILING DATE: 2003-07-16

PRIOR APPLICATION NUMBER: US/10/621,693

PRIOR FILING DATE: 2002-07-16

NUMBER OF SEQ ID NOS: 86

SOFTWARE: Patent in version 3.0

SEQ ID NO 8

LENGTH: 192

TYPE: PRT

ORGANISM: Artificial

OTHER INFORMATION: synthetic sequence

FEATURE:

NAME/KEY: mat_peptide

LOCATION: (1)..()

US-10-621-693-8

Query Match Best Local Similarity 58.5%; Score 466; DB 15; Length 192; Pred. No. 2.7e-42;

Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTPLSLFNDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSESIP 60

Db 1 MPTPLSLFNDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSESIP 60

QY 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

Db 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134

Db 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 9

US-10-621-693-78

Sequence 78, Application US/10621693

Publication No. US20040059093A1

GENERAL INFORMATION:

APPLICANT: Gentide Biopharmaceuticals, Inc.

APPLICANT: Bussell, Stuart

TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENCES

FILE REFERENCE: GNT-00101.P.1-US

CURRENT FILING DATE: 2003-07-16

PRIOR APPLICATION NUMBER: US 60/396,466

PRIOR FILING DATE: 2002-07-16

NUMBER OF SEQ ID NOS: 86

SOFTWARE: Patent in version 3.0

SEQ ID NO 78

LENGTH: 192

TYPE: PRT

ORGANISM: Artificial

OTHER INFORMATION: synthetic sequence

US-10-621-693-78

Query Match Best Local Similarity 58.5%; Score 466; DB 15; Length 192; Pred. No. 2.7e-42;

Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTPLSLFNDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSESIP 60

Db 1 MPTPLSLFNDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSESIP 60

QY 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

Db 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134

Db 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 10

US-10-621-693-86

Sequence 86, Application US/10621693

Publication No. US20040059093A1

GENERAL INFORMATION:

APPLICANT: Gentide Biopharmaceuticals, Inc.

APPLICANT: Bussell, Stuart

TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENCES

FILE REFERENCE: GNT-00101.P.1-US

CURRENT FILING DATE: 2003-07-16

PRIOR APPLICATION NUMBER: US 60/396,466

PRIOR FILING DATE: 2002-07-16

NUMBER OF SEQ ID NOS: 86

SOFTWARE: Patent in version 3.0

SEQ ID NO 86

LENGTH: 192

TYPE: PRT

ORGANISM: Artificial

OTHER INFORMATION: synthetic sequence

FEATURE:

NAME/KEY: MISC FEATURE

LOCATION: (2)..(192)

OTHER INFORMATION: sequence is repeated N+2 times, where N is a positive whole number

NAME/KEY: mat_peptide

LOCATION: (1)..()

US-10-621-693-86

Query Match Best Local Similarity 58.5%; Score 466; DB 15; Length 192; Pred. No. 2.7e-42;

Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTPLSLFNDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSESIP 60

Db 1 MPTPLSLFNDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLONPOTSLSFSESIP 60

QY 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

Db 61 TSNREETOQKSNLELIRISLLIOSWLEPVQLGTGRPFVNOHLCGS-----HLV 110

QY 111 EALYVCG--ERGFYTPKTRGIVEQ 134

Db 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

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RESULT 11
US-10-714-067-23
; Sequence 23, Application US/10714067
; Publication No. US2004007054A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, Richard I.
; APPLICANT: Marital, Joseph A.
; APPLICANT: Struman, Ingrid
; APPLICANT: Taylor, Robert
; APPLICANT: Bentzien, Frauke
; TITLE OF INVENTION: Novel Antiangiogenic Peptide Agents and Their
; FILE REFERENCE: UCSF-018/0205
; CURRENT APPLICATION NUMBER: US/10/714,067
; PRIOR FILING DATE: 2003-11-14
; PRIOR FILING DATE: 2001-03-27
; PRIOR APPLICATION NUMBER: 09/076,675
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: 60/046,394
; PRIOR FILING DATE: 1997-05-12
; NUMBER OF SEQ ID NOS: 34
; SEQ ID NO 23
; LENGTH: 192
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-714-067-23

Query Match
Best Local Similarity 58.5%; Score 466; DB 15; Length 192;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTTIPLSRLFDNMLRAHRLHQLAPDTYQEFEEAYIPKQKXSFLONPQTSLSSESIP 60
DB 1 MPTTIPLSRLFDNMLRAHRLHQLAPDTYQEFEEAYIPKQKXSFLONPQTSLSSESIP 60
QY 61 TPSNREETOQKSNLELRISLLIQSWLEPVQLGTGPRFVYNCHLGS-----HLV 110
DB 61 TPSNREETOQKSNLELRISLLIQSWLEPVQLGTGPRFVYNCHLGS-----HLV 110
QY 111 EALYLVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 12
US-10-621-693-42
; Sequence 42, Application US/10621693
; Publication No. US20040059093A1
; GENERAL INFORMATION:
; APPLICANT: Genetide Biopharmaceuticals, Inc.
; APPLICANT: Bussell, Stuart
; TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENC
; FILE REFERENCE: GNT-00101.P.1-US
; CURRENT APPLICATION NUMBER: US/10/621,693
; PRIOR FILING DATE: 2003-07-16
; PRIOR APPLICATION NUMBER: US 60/396,466
; NUMBER OF SEQ ID NOS: 86
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 42
; LENGTH: 193
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: synthetic sequence
US-10-621-693-42

Query Match
Best Local Similarity 58.5%; Score 466; DB 15; Length 193;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTTIPLSRLFDNMLRAHRLHQLAPDTYQEFEEAYIPKQKXSFLONPQTSLSSESIP 60
DB 1 MPTTIPLSRLFDNMLRAHRLHQLAPDTYQEFEEAYIPKQKXSFLONPQTSLSSESIP 60
QY 61 TPSNREETOQKSNLELRISLLIQSWLEPVQLGTGPRFVYNCHLGS-----HLV 110
DB 61 TPSNREETOQKSNLELRISLLIQSWLEPVQLGTGPRFVYNCHLGS-----HLV 110
QY 111 EALYLVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 13
US-10-621-693-72
; Sequence 72, Application US/10621693
; Publication No. US20040059093A1
; GENERAL INFORMATION:
; APPLICANT: Genetide Biopharmaceuticals, Inc.
; APPLICANT: Bussell, Stuart
; TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUE
; FILE REFERENCE: GNT-00101.P.1-US
; CURRENT APPLICATION NUMBER: US/10/621,693
; PRIOR FILING DATE: 2003-07-16
; PRIOR APPLICATION NUMBER: US 60/396,466
; NUMBER OF SEQ ID NOS: 86
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 72
; LENGTH: 206
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: synthetic sequence
US-10-621-693-72

Query Match
Best Local Similarity 70.5%; Score 466; DB 15; Length 206;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MPTTIPLSRLFDNMLRAHRLHQLAPDTYQEFEEAYIPKQKXSFLONPQTSLSSESIP 60
DB 1 MPTTIPLSRLFDNMLRAHRLHQLAPDTYQEFEEAYIPKQKXSFLONPQTSLSSESIP 60
QY 61 TPSNREETOQKSNLELRISLLIQSWLEPVQLGTGPRFVYNCHLGS-----HLV 110
DB 61 TPSNREETOQKSNLELRISLLIQSWLEPVQLGTGPRFVYNCHLGS-----HLV 110
QY 111 EALYLVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLDGG--SPRTGQIFKQ 142

RESULT 14
US-10-621-693-51
; Sequence 51, Application US/10621693
; Publication No. US20040059093A1
; GENERAL INFORMATION:
; APPLICANT: Genetide Biopharmaceuticals, Inc.
; APPLICANT: Bussell, Stuart
; TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENC
; FILE REFERENCE: GNT-00101.P.1-US
; CURRENT APPLICATION NUMBER: US/10/621,693
; PRIOR FILING DATE: 2003-07-16
; PRIOR APPLICATION NUMBER: US 60/396,466
; NUMBER OF SEQ ID NOS: 86
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 51
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Search completed: November 2, 2004, 20:59:23
Job time : 112.362 secs

LENGTH: 391
TYPE: PRT
ORGANISM: Artificial
FEATURE:
OTHER INFORMATION: synthetic sequence
FEATURE:
NAME/KEY: mac_peptide
LOCATION: (1)..()
US-10-621-693-51

Query Match 58.5%; Score 466; DB 15; Length 391;
Best Local Similarity 70.5%; Pred. No. 6,7e-42;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MFPTPLSRFLFDNMLRAHRLHQLAPDTYQEPFEAYIPKEOKYSPLONPQTSLSFSSESIP 60
DB 1 MFPTPLSRFLFDNMLRAHRLHQLAPDTYQEPFEAYIPKEOKYSPLONPQTSLSFSSESIP 60
QY 61 TPSNREETOQKSNLELRISILLIQSWLEPVGLTGPRFVNOHLGSGS-----HLV 110
DB 61 TPSNREETOQKSNLELRISILLIQSWLEPVG-LRSVFANSIVYGASDSNVYDLKDL 119
QY 111 EALYIVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLSDG---SPRTGQIFKQ 142

RESULT 15

US-10-621-693-32
Sequence 32, Application US/10621693
Publication No. US2004005903A1

GENERAL INFORMATION:

APPLICANT: Genetide Biopharmaceuticals, Inc.

APPLICANT: Bussell, Stuart

TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENCES

TITLE OF INVENTION: DIRECT FUSIONS OR WITH LINKERS

FILE REFERENCE: GNT-00101.P.1-US

CURRENT APPLICATION NUMBER: US/10/621,693

CURRENT FILING DATE: 2003-07-16

PRIOR APPLICATION NUMBER: US 60/396,466

PRIOR FILING DATE: 2002-07-16

NUMBER OF SEQ ID NOS: 86

SOFTWARE: PatentIn version 3.0

SEQ ID NO 32

LENGTH: 574

TYPE: PRT

ORGANISM: Artificial

FEATURE:

OTHER INFORMATION: synthetic sequence

FEATURE:

NAME/KEY: MISC FEATURE

LOCATION: (379)..(569)

OTHER INFORMATION: sequence is repeated N-1 times, where N is a positive whole number

FEATURE:

NAME/KEY: mac_peptide

LOCATION: (1)..()

US-10-621-693-32

Query Match

Best Local Similarity 70.5%; Score 466; DB 15; Length 574;
Matches 103; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 1 MFPTPLSRFLFDNMLRAHRLHQLAPDTYQEPFEAYIPKEOKYSPLONPQTSLSFSSESIP 60
DB 1 MFPTPLSRFLFDNMLRAHRLHQLAPDTYQEPFEAYIPKEOKYSPLONPQTSLSFSSESIP 60
QY 61 TPSNREETOQKSNLELRISILLIQSWLEPVGLTGPRFVNOHLGSGS-----HLV 110
DB 61 TPSNREETOQKSNLELRISILLIQSWLEPVG-LRSVFANSIVYGASDSNVYDLKDL 119
QY 111 EALYIVCG--ERGFYTPKTRGIVEQ 134
DB 120 EGIQTLMGRLSDG---SPRTGQIFKQ 142

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: November 2, 2004, 19:48:36 ; Search time 145.295 Seconds
(without alignments)
594,006 Million cell updates/sec

Title: US-10-054-873-7

Perfect score: 797

Sequence: 1 MFPTPLSRLEFDMNMAHR.....IVQCCTSTCSLYQLENYCN 150

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1825181 seqs, 575374646 residues

Total number of hits satisfying chosen parameters: 1825181

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : UniProt 02:*

1: uniprot_sproti:*

2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	461	57.8	217	1	SOMA_HUMAN
2	461	57.8	217	1	SOMA_PANTR
3	460	57.7	217	1	SOMA_MACMU
4	460	57.7	217	2	CELYFO
5	460	57.7	217	2	AAFI1509
6	457	57.3	217	2	CELYFI
7	457	57.3	217	2	AAFI1508
8	457	57.3	217	1	SOMA_SALTB
9	456	54.7	217	2	QWNEO
10	434.5	54.5	217	1	SOMA_PANTR
11	432	54.2	217	1	SOMA_CALVA
12	427.5	53.6	217	2	CEFH54
13	427.5	53.6	245	2	014644
14	426.5	53.5	217	1	SOMA2_HUMAN
15	421.5	52.9	217	2	CEFH32
16	407.5	51.1	217	2	QW369
17	399	50.1	184	2	QW6679
18	399	50.1	217	1	SOMA2_MACMU
19	397	49.8	217	2	QW6679
20	396	49.7	217	2	QW6679
21	396	49.7	217	2	QW6679
22	385	48.3	217	2	QW6679
23	381	47.8	217	1	CSH_HUMAN
24	381	47.8	217	2	QW6679
25	381	47.8	217	2	AAFI1508
26	381	47.8	217	2	AAFI1508
27	381	47.8	217	2	AAFI1508
28	370	46.4	217	2	AAFI1508
29	365.5	45.9	202	2	AAFI1508
30	348	43.7	217	2	QW6679
31	341	42.6	202	2	014643

32	322.5	40.5	217	2	QWMI74	QWMI74 callitrich
33	310.5	39.0	216	1	SOMA_MESAU	P3786 mesocricetu
34	307.5	38.6	190	1	SOMA_BALBO	P33092 balaeopreter
35	306.5	38.5	216	1	SOMA_HORSE	P01245 equus caball
36	306.5	38.5	216	2	070615	O70615 spalax leuc
37	306.5	38.5	217	1	SOMA_GALSE	Q99KAI galago sena
38	306.5	38.5	217	1	SOMA_NICPY	Q99KAI galago sena
39	304.5	38.2	216	1	SOMA_XOUS2	P06880 mus musculu
40	304.5	38.2	216	2	BAB31932	Bab31932 mus muscu
41	304.5	38.2	216	2	BAB31933	Bab31933 mus muscu
42	304.5	38.2	216	2	BAB31935	Bab31935 mus muscu
43	304.5	38.2	216	2	BAB31937	Bab31937 mus muscu
44	304.5	38.2	216	2	BAC27096	Bac27096 mus muscu
45	302.5	38.0	216	1	SOMA_RABIT	P46407 oryctolagus

ALIGNMENTS

RESULT 1

SOMA_HUMAN STANDARD: PRT: 217 AA.

ID AC P01241; 014405; Q16631; Q9HEZ1; Q9JMU7; Q9JUL5;

DT 21-JUL-1986 (Rel. 01, Created)

DT 01-MAR-1992 (Rel. 21, Last sequence update)

DT 01-OCT-2004 (Rel. 45, Last annotation update)

DE Somatotropin precursor (growth hormone) (GH) (GH-N) (Pituitary growth hormone) (Growth hormone 1).

GN Name=GH1;

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

OK NCBI_TaxID=9606;

RN [1]

RP SEQUENCE FROM N.A. (ISOFORM 1).

RX MEDLINE=80034477; PubMed=386281;

RA Roskam W., Rougeon F.;

RT "Molecular cloning and nucleotide sequence of the human growth hormone structural gene."

RL Nucleic Acids Res. 7:305-320(1979).

RN [2]

RP SEQUENCE FROM N.A. (ISOFORM 1).

RX MEDLINE=79203293; PubMed=377496;

RA Martini J.A., Halliwell R.A., Baxter J.D., Goodman H.M.;

RT "Human growth hormone: complementary DNA cloning and expression in bacteria."

RL Science 205:602-607(1979).

RN [3]

RP SEQUENCE FROM N.A. (ISOFORM 1), AND POSSIBLE ALTERNATIVE SPLICING.

RX MEDLINE=82014935; PubMed=6263091;

RA Denoto F.M., Moore D.D., Goodman H.M.;

RT "Human growth hormone DNA sequence and mRNA structure: possible alternative splicing."

RL Nucleic Acids Res. 9:3719-3730(1981).

RN [4]

RP SEQUENCE FROM N.A.

RX MEDLINE=83182010; PubMed=7169009;

RA Seedburg P.H.;

RT "The human growth hormone gene family: nucleotide sequences show recent divergence and predict a new polypeptide hormone."

RL DNA 1:239-249(1982).

RN [5]

RP SEQUENCE FROM N.A.

RX MEDLINE=89307277; PubMed=2744760;

RA Chen R.Y., Liao Y.C., Smith D.H., Barrera-Saldana H.A., Gellinas R.E., Seedburg P.H.;

RT "The human growth hormone locus: nucleotide sequence, biology, and evolution."

RL Genomics 4:479-497(1989).

RN [6]

RP SEQUENCE FROM N.A. (ISOFORM 3).

RX TISUS=Pituitary;

RA Gu J., Huang Q.-H., Li N., Xu S.-H., Han Z.-G., Fu G., Chen Z.;

- RT "A novel gene expressed in human pituitary.";
RT Submitted (SEP-1999) to the EMBL/GenBank/DBJ databases.
RN [17]
RC TISSUE=Pituitary;
RX MEDLINE=20402571; PubMed=10931946;
RA Hu R.-W., Han Z.-G., Song H.-D., Peng Y.-D., Huang Q.-H., Ren S.-X.,
RA Xu S.-H., Dai M., Mao Y.-F., Gao G.-F., Rong R., Ye M., Zhou J.,
RA Xu S.-H., Gu J.-X., Shi J.-X., Jin W.-R., Zhang C.-K., Wu T.-M.,
RA Huang G.-Y., Chen Z., Chen M.-D., Chen J.-L.;
RT "Gene expression profiling in the human hypothalamus-pituitary-adrenal
RT axis and full-length cDNA cloning.";
RT Proc. Natl. Acad. Sci. U.S.A. 97:9543-9548(2000).
RN [18]
RP SEQUENCE OF 1-26 FROM N.A.
RX MEDLINE=86137393; PubMed=3912261;
RA Gray G.L., Baldridge J.S., McKewen K.S., Heyneker H.L., Chang C.N.;
RT "Periplasmic production of correctly processed human growth hormone in
RT *Escherichia coli*: natural and bacterial signal sequences are
RT interchangeable.";
RT Gene 39:247-254(1995).
RN [19]
RP SEQUENCE OF 27-217.
RX MEDLINE=69289202; PubMed=5810834;
RA Li C.H., Dixon J.S., Liu W.-K.;
RT "Human pituitary growth hormone. XIX. The primary structure of the
RT hormone.";
RT Arch. Biochem. Biophys. 133:70-91(1969).
RN [10]
RP SEQUENCE OF 27-217, AND REVISIONS.
RX MEDLINE=72143935; PubMed=5144027;
RA Li C.H., Dixon J.S.;
RT "Human pituitary growth hormone. 32. The primary structure of the
RT hormone: revision.";
RT Arch. Biochem. Biophys. 146:233-236(1971).
RN [11]
RP REVISION.
RX MEDLINE=73092028; PubMed=4675454;
RA Bewley T.A., Dixon J.S., Li C.H.;
RT "Sequence comparison of human pituitary growth hormone, human
RT chorionic somatomammotropin, and ovine pituitary growth and lactogenic
RT hormones.";
RT Int. J. Pept. Protein Res. 4:281-287(1972).
RN [12]
RP SEQUENCE OF 27-61 AND 102-124.
RX MEDLINE=71139765; PubMed=5279046;
RA Niall H.D.;
RT "Revised primary structure for human growth hormone.";
RT Nature New Biol. 230:90-91(1971).
RN [13]
RP REVISIONS TO 119-120 AND 157-159.
RX MEDLINE=71153968; PubMed=5279528;
RA Niall H.D., Hogan M.L., Sauer R., Rosenblum I.Y., Greenwood F.C.;
RT "Sequences of pituitary and placental lactogenic and growth hormones:
RT evolution from a primordial peptide by gene reduplication.";
RT Proc. Natl. Acad. Sci. U.S.A. 68:866-869(1971).
RN [14]
RP REVISION.
RA Niall H.D.;
RT "The chemistry of the human lactogenic hormones.";
RT (In) Griffiths K. (eds.);
RT Prolactin and Oestrogenesis, Proc. Fourth tenuous workshop prolactin,
RT pp.13-20, Alpha Omega Alpha Press, Cardiff (1972).
RN [15]
RP SEQUENCE OF 27-79 (ISOFORM 2).
RX MEDLINE=81117361; PubMed=7462247;
RA Chapman G.E., Rogers K.M., Robinson T., Bradshaw R.A., Bates O.J.,
RA Turner C., Cary P.D., Crane-Robinson C.;
RT "The 20,000 molecular weight variant of human growth hormone.
RT Preparation and some physical and chemical properties.";
RT J. Biol. Chem. 256:2395-2401(1981).
RN [16]
RP SEQUENCE OF 46-80 (ISOFORM 2).
RX MEDLINE=80130196; PubMed=7356479;
RA Lewis U.J., Bonewald L.F., Lewis L.J.;
RT "The 20,000-dalton variant of human growth hormone: location of the
RT amino acid deletions.";
RT Biochem. Biophys. Res. Commun. 92:511-516(1980).
RN [17]
RP DEAMINATION OF GUN-163 AND ASN-178.
RX MEDLINE=82052997; PubMed=7028740;
RA Lewis U.J., Singh R.N., Bonewald L.F., Seavey B.K.;
RT "Altered proteolytic cleavage of human growth hormone as a result of
RT deamination.";
RT J. Biol. Chem. 256:11645-11650(1981).
RN [18]
RP PHOSPHORYLATION SITES SER-132 AND SER-176.
RC TISSUE=Pituitary;
RX PubMed=14997482; DOI=10.1002/pmic.200300584;
RA Giorgianni F., Beranova-Giorgianni S., Desiderio D.M.;
RT "Identification and characterization of phosphorylated proteins in the
RT human pituitary.";
RT Proteomics 4:587-598(2004).
RN [19]
RP REVIEW.
RX MEDLINE=99321812; PubMed=10393484;
RA Baumann G.;
RT "Growth hormone heterogeneity in human pituitary and plasma.";
RT Horm. Res. 51 Suppl. 1:2-6(1999).
RN [20]
RP 3D-STRUCTURE MODELING.
RX MEDLINE=88190073; PubMed=3447173;
RA Cohen P.E., Kuntz I.D.;
RT "Prediction of the three-dimensional structure of human growth
RT hormone.";
RT Proteins 2:162-166(1987).
RN [21]
RP X-RAY CRYSTALLOGRAPHY (2.8 ANGSTROMS).
RX MEDLINE=92196577; PubMed=1549776;
RA de Vos A.M., Ullrich M., Kossiakoff A.A.;
RT "Human growth hormone and extracellular domain of its receptor:
RT crystal structure of the complex.";
RT Science 255:306-312(1992).
RN [22]
RP X-RAY CRYSTALLOGRAPHY (2.9 ANGSTROMS).
RX MEDLINE=95075462; PubMed=7984244;
RA Somers W., Ullrich M., de Vos A.M., Kossiakoff A.A.;
RT "The X-ray structure of a growth hormone-prolactin receptor complex.";
RT Nature 372:478-481(1994).
RN [23]
RP X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS).
RA Chantalat L., Chirgatz N.Y., Jones N., Korber F., Navaza J.,
RA Pavlovsk A.G., Wlodawer A.;
RT "The crystal-structure of wild-type growth-hormone at 2.5-A
RT resolution.";
RT Protein Pept. Lett. 2:333-340(1995).
RN [24]
RP X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS).
RX MEDLINE=97113023; PubMed=8943276;
RA Sundstroem M., Lundqvist T., Roedin J., Giebel L.B., Milligan D.,
RA Norstedt G.;
RT "Crystal structure of an antagonist mutant of human growth hormone,
RT G120R, in complex with its receptor at 2.9-A resolution.";
RT J. Biol. Chem. 271:32197-32203(1996).
RN [25]
RP VARIANT KOWARSKI SYNDROME CVS-103.
RX MEDLINE=96150232; PubMed=8552145;
RA Takahashi Y., Kaji H., Okimura Y., Goji K., Abe H., Chihara K.;
RT "Short stature caused by a mutant growth hormone.";
RT N. Engl. J. Med. 334:432-436(1996).
RN [26]
RP ERRATUM.
RA Takahashi Y., Kaji H., Okimura Y., Goji K., Abe H., Chihara K.;
RT N. Engl. J. Med. 334:1207-1207(1996).
RN [27]

RP VARIANT KOMARSKI SYNDROME GLY-138.
RX MEDLINE=97426478; PubMed=9276733;

Query Match 57.8%; Score 461; DB 1; Length 217;
Best Local Similarity 70.3%; Pred. No. 1.7e-36;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 PFTPLSLRFDNMLRAHRLHQLAFDTQCEFEBAVYIPKEQKSYFLQNPQTSLSFSISPT 61
DB 27 PFTPLSLRFDNMLRAHRLHQLAFDTQCEFEBAVYIPKEQKSYFLQNPQTSLSFSISPT 86
QY 62 PSNREETOQKSNLELIRISLLISLQSWLEPVQLTGTFPVNQHCGS-----HYVE 111
DB 87 PSNREETOQKSNLELIRISLLISLQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLDE 145
QY 112 ALYVCG--ERGFYTPKTRGIVEQ 134
DB 146 GIQTMGRLEDC--SPRTGQIFKQ 167

RESULT 2

SOMA_PANTR STANDARD; PRT; 217 AA.
ID SOMA_PANTR
AC P58756;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Somatotropin precursor (Growth hormone) (GH) (GH-N) (Pituitary growth hormone) (Growth hormone 1).
GN Name=GH1;
OS Pan troglodytes (Chimpanzee).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Pan.
OX NCBI_Taxid=9558;
RN [1]
RA SEQUENCE FROM N.A.
RA Revol A., Esquivel D., Santiago D., Barrera-Saldana H.;
RT "Independent duplication of the growth hormone gene in three anthropoid lineages";
RT Submitted (Apr-2001) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues (By similarity).
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the somatotropin/prolactin family.
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CC -----
DR EMBL; AF374232; AAJ72284.1; -
DR HSSP; P01241; IHWG.
DR InterPro; IPR009079; 4_helix_cytokine.
DR InterPro; IPR001400; Somatotropin.
DR Pfam; PF00103; Hormone_1; 1.
DR PRINTS; PRO0836; SOMATOTROPIN.
DR PROSITE; PS00266; SOMATOTROPIN_1; 1.
DR PROSITE; PS00338; SOMATOTROPIN_2; 1.
DR Hormone; Pituitary; Signal.
FT CHAIN 1 26
FT DISULFID 27 217 By similarity.
FT DISULFID 79 191 By similarity.
FT DISULFID 208 215 By similarity.
SQ SEQUENCE 217 AA; 24843 MW; FEA295DE0518674 CRC64;
Query Match 57.8%; Score 461; DB 1; Length 217;

Best Local Similarity 70.3%; Pred. No. 1.7e-36;
Matches 102; Conservative 7; Mismatches 20; Indels 16; Gaps 4;

QY 2 PFTPLSLRFDNMLRAHRLHQLAFDTQCEFEBAVYIPKEQKSYFLQNPQTSLSFSISPT 61
DB 27 PFTPLSLRFDNMLRAHRLHQLAFDTQCEFEBAVYIPKEQKSYFLQNPQTSLSFSISPT 86
QY 62 PSNREETOQKSNLELIRISLLISLQSWLEPVQLTGTFPVNQHCGS-----HYVE 111
DB 87 PSNREETOQKSNLELIRISLLISLQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLDE 145
QY 112 ALYVCG--ERGFYTPKTRGIVEQ 134
DB 146 GIQTMGRLEDC--SPRTGQIFKQ 167

RESULT 3

SOMA_MACMU STANDARD; PRT; 217 AA.
ID SOMA_MACMU
AC P33093;
DT 01-OCT-1993 (Rel. 27, Created)
DT 01-OCT-1994 (Rel. 30, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Somatotropin precursor (Growth hormone) (GH) (GH-N) (Pituitary growth hormone) (Growth hormone 1).
GN Name=GH1;
OS Macaca mulatta (Rhesus macaque).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopitheidae;
OX NCBI_Taxid=9544;
RN [1]
RA SEQUENCE FROM N.A.
RA MEDLINE=9408724; PubMed=8404617;
RA Goles T.G., Durning M., Fisher J.M., Fowler P.D.;
RT "Cloning of four growth hormone/chorionic somatomotropin-related complementary deoxyribonucleic acids differentially expressed during pregnancy in the rhesus monkey placenta";
RT Endocrinology 133:1744-1752(1993).
RN [2]
RP SEQUENCE OF 27-217.
RX MEDLINE=86129460; PubMed=3080959;
RA Li C.H., Chung D., Lam H.W., Stein S.;
RT "The primary structure of monkey pituitary growth hormone";
RL Arch. Biochem. Biophys. 245:287-291(1986).
CC -!- FUNCTION: Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the somatotropin/prolactin family.
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CC -----
DR EMBL; L16556; AAA18842.1; -
DR PIR; I67410; I67410.
DR HSSP; P01241; IAXI.
DR InterPro; IPR009079; 4_helix_cytokine.
DR InterPro; IPR001400; Somatotropin.
DR Pfam; PF00103; Hormone_1; 1.
DR PRINTS; PRO0836; SOMATOTROPIN.
DR PROSITE; PS00266; SOMATOTROPIN_1; 1.
DR PROSITE; PS00338; SOMATOTROPIN_2; 1.
DR Direct protein sequencing; Hormone; Pituitary; Signal.
FT SIGNAL 1 26

FT CHAIN 27 217 Somatocytin.
 FT DISULFID 79 191 By similarity.
 FT DISULFID 208 215 By similarity.
 FT CONFLICT 100 100 E -> Q (in Ref. 2).
 FT CONFLICT 179 179 N -> D (in Ref. 2).
 SQ SEQUENCE 217 AA; 24913 MW; 2C5180341EEC46D0 CRC64;

Query Match 57.7%; Score 460; DB 2; Length 217;
 Best Local Similarity 98.9%; Pred. No. 2,1e-36;
 Matches 90; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 61
 DB 27 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 86
 QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQ 92
 DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQ 117

RESULT 4

Q61YF0 PRELIMINARY; PRT; 217 AA.

AC Q61YF0
 DT 05-JUL-2004 (TREMBlrel. 27, Created)
 DT 05-JUL-2004 (TREMBlrel. 27, Last sequence update)
 DT 05-JUL-2004 (TREMBlrel. 27, Last annotation update)
 DE Growth hormone 1 variant 2.
 GN Name=GHL;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Jorge A.A.L., Armhold I.J.P., Mendonca B.B.;
 RL Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL: AY613432; AAT11509.1;
 DR InterPro: IPR009079; 4 helix cytokine.
 DR InterPro: IPR001400; Somatocytin.
 DR Pfam: PF00103; Hormone_1; 1.
 DR PRINTS: PR00836; SOMATOTROPIN.
 DR PROSITE: PS00266; SOMATOTROPIN_1; 1.
 DR PROSITE: PS00338; SOMATOTROPIN_2; 1.
 SQ SEQUENCE 217 AA; 24946 MW; 72D079DF52BD851A CRC64;

Query Match 57.7%; Score 460; DB 2; Length 217;
 Best Local Similarity 98.9%; Pred. No. 2,1e-36;
 Matches 90; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 61
 DB 27 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 86
 QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQ 92
 DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQ 117

RESULT 5

AAT11509 PRELIMINARY; PRT; 217 AA.

AC AAT11509
 DT 20-MAY-2004 (TREMBlrel. 27, Created)
 DT 20-MAY-2004 (TREMBlrel. 27, Last sequence update)
 DT 20-MAY-2004 (TREMBlrel. 27, Last annotation update)
 DE Growth hormone 1 variant 2.
 GN GHL.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]

RP SEQUENCE FROM N.A.
 RA Jorge A.A.L., Armhold I.J.P., Mendonca B.B.;
 RL "New allelic variant (G152R) in growth hormone (GH) gene associated
 RT with idiopathic short stature."
 RI Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL: AY613432; AAT11509.1;
 SQ SEQUENCE 217 AA; 24946 MW; 72D079DF52BD851A CRC64;

Query Match 57.7%; Score 460; DB 2; Length 217;
 Best Local Similarity 98.9%; Pred. No. 2,1e-36;
 Matches 90; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 61
 DB 27 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 86
 QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQ 92
 DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQ 117

RESULT 6

Q61YF1 PRELIMINARY; PRT; 217 AA.

AC Q61YF1
 DT 05-JUL-2004 (TREMBlrel. 27, Created)
 DT 05-JUL-2004 (TREMBlrel. 27, Last sequence update)
 DT 05-JUL-2004 (TREMBlrel. 27, Last annotation update)
 DE Growth hormone 1 variant 1.
 GN Name=GHL;
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Jorge A.A.L., Armhold I.J.P., Mendonca B.B.;
 RL Submitted (APR-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL: AY613431; AAT11508.1;
 DR InterPro: IPR009079; 4 helix cytokine.
 DR InterPro: IPR001400; Somatocytin.
 DR Pfam: PF00103; Hormone_1; 1.
 DR PRINTS: PR00836; SOMATOTROPIN.
 DR PROSITE: PS00266; SOMATOTROPIN_1; 1.
 DR PROSITE: PS00338; SOMATOTROPIN_2; 1.
 SQ SEQUENCE 217 AA; 24875 MW; 12DB1B92F63934D8 CRC64;

Query Match 57.3%; Score 457; DB 2; Length 217;
 Best Local Similarity 69.7%; Pred. No. 4e-36;
 Matches 101; Conservative 7; Mismatches 21; Indels 16; Gaps 4;

QY 2 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 61
 DB 27 FFTPLSLRFDNMLRAHRLHQLAFDTYQEFEEAYIPKQKYSFLONPQTSLSFSSES IPT 86
 QY 62 PSNREETOQKSNLELRISILLIQSWLEPVQ 92
 DB 87 PSNREETOQKSNLELRISILLIQSWLEPVQ 117

QY 112 ALIVVG--ERGFYPTKRGIVEQ 134

DB 146 GIQLMGRLEDG--SPRTQIFRQ 167

RESULT 7

AAT11508 PRELIMINARY; PRT; 217 AA.

AC AAT11508
 DT 20-MAY-2004 (TREMBlrel. 27, Created)
 DT 20-MAY-2004 (TREMBlrel. 27, Last sequence update)
 DT 20-MAY-2004 (TREMBlrel. 27, Last annotation update)
 DE Growth hormone 1 variant 1.
 GN GHL.

OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.
 OX NCBI_TaxId=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Jorge A.A.L., Arnold I.J.P., Mendonça B.B.;
 RT "New allelic variant (A39V) in growth hormone (GH) gene associated
 with GH deficiency in heterozygous state."
 RT Submitted (Apr-2004) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF613431; AAT1508.1;
 SQ SEQUENCE 217 AA; 24875 MW; 12DBLB92F63934D8 CRC64;

Query Match 57.3%; Score 457; DB 2; Length 217;
 Best Local Similarity 69.7%; Pred. No. 4e-36;
 Matches 101; Conservative 7; Mismatches 21; Indels 16; Gaps 4;

QY 2 FFTPLSLRFDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLQNPQTSLSFSSESIFT 61
 DB 27 FFTPLSLRLDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLQNPQTSLSFSSESIFT 86
 QY 62 PSNREETOQKSNLELRISLLIQSWLEPVQLGTFPYNQHLGSG-----HIVE 111
 DB 87 PSNREETOQKSNLELRISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLER 145
 QY 112 ALYIVCG--ERGFYTPKTRGIVEQ 134
 DB 146 GIQTLGRLEDDG--SPRTGQIFKQ 167

RESULT 8
 SOMA_SAIBB STANDARD; PRT; 217 AA.
 ID P58343;
 AC 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Somatotropin precursor (Growth hormone).
 GN Name=GH1;
 OS Saimiri boliviensis boliviensis (Bolivian squirrel monkey).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Saimiri.
 OX NCBI_TaxId=39432;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE=21265430; PubMed=11371582;
 RA Liu J.C., Makova K.D., Adkins R.M., Gibson S., Li W.H.;
 RT "Episodic evolution of growth hormone in primates and emergence of the
 RT species specificity of human growth hormone receptor."
 RT Mol. Biol. Evol. 18:945-953(2001).
 CC -1- FUNCTION: Plays an important role in growth control. Its major
 CC role in stimulating body growth is to stimulate the liver and
 CC other tissues to secrete IGF-1. It stimulates both the
 CC differentiation and proliferation of myoblasts. It also stimulates
 CC amino acid uptake and protein synthesis in muscle and other
 CC tissues (by similarity).
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- SIMILARITY: Belongs to the somatotropin/prolactin family.

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 CC -----
 DR EMBL; AF339060; AAK62287.1; -
 DR HSRP; P01241; 1A22.
 DR InterPro; IPR009079; 4_helix_cytokine.
 DR InterPro; IPR001400; Somatotropin.
 DR Pfam; PF00103; Hormone_1; 1.
 DR PRINTS; PR00836; SOMATOTROPIN.

DR PROSITE; PS00266; SOMATOTROPIN_1; 1.
 DR PROSITE; PS00338; SOMATOTROPIN_2; 1.
 KW Hormone; Pituitary; Signal.
 FT SIGNAL 1 26 By similarity.
 FT CHAIN 27 217 Somatotropin.
 FT DISULFID 79 191 By similarity.
 FT DISULFID 208 215 By similarity.
 SQ SEQUENCE 217 AA; 24864 MW; 9515289992C529F7 CRC64;

Query Match 54.8%; Score 437; DB 1; Length 217;
 Best Local Similarity 91.3%; Pred. No. 3.5e-34;
 Matches 84; Conservative 5; Mismatches 3; Indels 0; Gaps 0;

QY 2 FFTPLSLRFDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLQNPQTSLSFSSESIFT 61
 DB 27 FFTPLSLRLDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLQNPQTSLSFSSESIFT 86
 QY 62 PSNREETOQKSNLELRISLLIQSWLEPVQL 93
 DB 87 PASKETQOKSNLELRISLLIQSWLEPVQL 118

RESULT 9

Q8WNEO PRELIMINARY; PRT; 217 AA.

AC Q8WNEO;
 DT 01-MAR-2002 (TREMUREL. 20, Created)
 DT 01-MAR-2002 (TREMUREL. 20, Last sequence update)
 DT 01-MAR-2004 (TREMUREL. 26, Last annotation update)
 DE Growth hormone.
 GN Name=GH-N;
 OS Ateles geoffroyi (Black-handed spider monkey).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 CC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Ateleinae; Ateles.
 OX NCBI_TaxId=9509;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Revol A., Esquivel D., Santiago D., Barrera-Saldana H.;
 RL Submitted (Apr-2001) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AF374234; AAL72286.1; -
 DR HSRP; P01241; 1A22.
 DR GO; GO:0005176; C:extracellular; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR InterPro; IPR009079; 4_helix_cytokine.
 DR InterPro; IPR001400; Somatotropin.
 DR Pfam; PF00103; Hormone_1; 1.
 DR PRINTS; PR00836; SOMATOTROPIN.
 DR PROSITE; PS00266; SOMATOTROPIN_1; 1.
 DR PROSITE; PS00338; SOMATOTROPIN_2; 1.
 SQ SEQUENCE 217 AA; 24894 MW; 425829F41EBAA6 CRC64;

Query Match 54.7%; Score 436; DB 2; Length 217;
 Best Local Similarity 66.9%; Pred. No. 4.4e-34;
 Matches 97; Conservative 8; Mismatches 24; Indels 16; Gaps 4;

QY 2 FFTPLSLRFDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLQNPQTSLSFSSESIFT 61
 DB 27 FFTPLSLRLDNMLRAHRLHQLAFDTYQFEFEAYIPKQKYSFLQNPQTSLSFSSESIFT 86
 QY 62 PSNREETOQKSNLELRISLLIQSWLEPVQLGTFPYNQHLGSG-----SHIVE 111
 DB 87 PASKETQOKSNLELRISLLIQSWLEPVQF-LRSVFANSLVYGASDSNVYDLKDLER 145
 QY 112 ALYIVCG--ERGFYTPKTRGIVEQ 134
 DB 146 GIQTLGRLEDDG--SPOTGEIFRQ 167

RESULT 10
 SOM2_PANTR STANDARD; PRT; 217 AA.
 ID SOM2_PANTR
 AC P56757;
 DT 28-FEB-2003 (Rel. 41, Created)

```

CX NCBI_TaxID=9483;
RN [1]
RP SEQUENCE FROM N.A.
RA Wallis O.C., Wallis M.;
RT "Cloning and characterisation of a putative growth hormone encoding
   gene from the marmoset (Callithrix jacchus).";
RL Submitted (Aug-2000) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: Plays an important role in growth control. Its major
   role in stimulating body growth is to stimulate the liver and
   other tissues to secrete IGF-1. It stimulates both the
   differentiation and proliferation of myoblasts. It also stimulates
   amino acid uptake and protein synthesis in muscle and other
   tissues (By similarity).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: Belongs to the somatotropin/prolactin family.
-----
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CC or send an email to license@sib-sib.ch).
CC -----
DR EMBL; AJ297563; CAC03481.1; -.
DR HSPB; P01241; I422.
DR Interpro; IPR009079; 4_helix_cytokine.
DR Interpro; IPR001400; Somatotropin.
DR Pfam; PF00103; Hormone_1; 1.
DR PRINTS; PR00836; SOMATOTROPIN.
DR PROSITE; PS00266; SOMATOTROPIN_1; 1.
DR PROSITE; PS00338; SOMATOTROPIN_2; 1.
DR Hormone; Pituitary; Signal.
FM FM SIGNAL 1 26 By similarity.
FM CHAIN 27 217 Somatotropin.
FM DISUFID 79 191 By similarity.
FM DISUFID 208 215 By similarity.
SQ SEQUENCE 217 AA, 24959 MW, E10215N12CE6192 CRC64;
-----
Qy Query Match 54.2%; Score 432; DB 1; Length 217;
Best Local Similarity 91.2%; Pred. No. 1,1e-33;
Matches 83; Conservative 5; Mismatches 3; Indels 0; Gaps 0;
Db 2 PFPIPLSRFLFDNMLRAHRLHQLAFDYQGFEEAVYIPKQKYSPLQNPQTSISSESIFPT 61
27 PFPIPLSRFLDNDMLRAHRLHQLAFDYQGFEEAVYIPKQKYSPLQNPQTSISSESIFPT 86
Qy 62 PSNREETQOKSMELRLRISLILQSWLEPQ 92
Db 87 PASKKIQOKSMELRLRISLILQSWLEPQ 117
-----
RESULT 12
Q6FHS4 PRELIMINARY; PRT; 217 AA.
AC O6FHS4;
DD 05-JUL-2004 (TREMBlrel. 27, Created)
DD 05-JUL-2004 (TREMBlrel. 27, Last sequence update)
DD 05-JUL-2004 (TREMBlrel. 27, Last annotation update)
DE GH2 Protein.
GN Name=GH2;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Primates; Catarrhini; Hominiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Hallack A., Ebert L., Moundinya M., Schick M., Eisenstein S.,
RA Neubert P., Kering X., Schatten R., Shen B., Henze S., Mar W.,
RA Korn B., Zuo D., Hu Y., Labaer J.,
RL Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; CR541902; CAG46700.1; -.
DR Interpro; IPR009079; 4_helix_cytokine.

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Db      87 PBNRYKTOQCKSNLELRISILLIQSWLPEYQLRSVFANSIYVGASDSNVYRHL 140
|||||
RESULT 15
ID      Q6FH32                                PRELIMINARY;          PRT;       217 AA.
AC      O6FH32;
DT      05-JUL-2004 (TREMBLrel. 27, Created)
DT      05-JUL-2004 (TREMBLrel. 27, Last sequence update)
DT      05-JUL-2004 (TREMBLrel. 27, Last annotation update)
DE      GH2 protein (fragment).
CN      Name-GH2;
OC      Homo sapiens (Human).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Hominidae; Homo.
OX      NCBI_Taxid=9606;
RN      [1]_
RP      SOURCE FROM N.A.
RA      Hallicock A., Expert L., Moundinya M., Schick M., Eisenstein S.,
RA      Neubert P., Ketrang X., Schatten R., Shen B., Henze S., Mar W.,
RA      Korn B., Zuo D., Hu Y., Laaber J.,
RL      Submitted (JUN-2004) to the EMBL/GenBank/DBJ databases.
DR      EMBL; CR541924; CAG46722.1; -
DR      InterPro; IPRO90979; 4 helix_cyclokin.
DR      Interpro; IPR001400; Somatotropin.
DR      Pfam; PF00103; Hormone_1; 1.
DR      PRINTS; PR00836; SOMATOTROPIN.
DR      PROSITE; PS00266; SOMATOTROPIN_1; 1.
DR      PROSITE; PS00338; SOMATOTROPIN_2; 1.
FT      NON_TER
SQ      SEQUENCE      217 AA; 25010 MW; 075C0EP63CISAAP5 CRC64;

Query Match           52.9%; Score 421.5; DB 2; Length 217;
Best Local Similarity 77.2%; Pred. No. 1,1e-32;
Matches    88; Conservative   4; Mismatches    11; Indels     11; Gaps     1;

QY      62 PNREETQCKSNLELRISILLIQSWLEPVOL-----GTGPFVNQHL 104
|||
DB      87 PBNRYKTOQCKSNLELRISILLIQSWLPEYQLRSVFANSIYVGASDSNVYRHL 140
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Search completed: November 2, 2004, 20:20:34
Job time : 145.295 secs
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